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Patent

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of:

David D. Faraldo II

) Examiner: Leroux, Etienne Pierre

Application No.: 10/020,123

) Art Group: 2161

Filed: October 30, 2001

For: **ALERT MANAGEMENT DATA  
INFRASTRUCTURE AND  
CONFIGURATION GENERATOR**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**DECLARATION UNDER 37 C.F.R. § 1.131**

I, David D. Faraldo II, declare the following:

1. I am an inventor of the above identified patent application.
2. I have reviewed the application, including the claims of the application, and I have also reviewed a copy of the current claims which are pending (a copy of which is attached as Exhibit A).
3. The declaration made herein is to establish reduction to practice of the invention prior to October 19, 2000, which is the effective filing date of the U.S. Patent Number 7,069,309.
4. The claimed invention was implemented prior to October 19, 2000. Hence, the claimed invention was reduced to practice prior to October 19, 2000.
5. Exhibit B attached herewith is a title page of a Product Requirements Document (PRD) for NOCpulse Internet Operational Support Service, dated August 30, 2000, i.e., prior to October 19, 2000. The PRD is an internal document that describes the NOCpulse service incorporating the Telalert system which is the subject matter of the above identified patent application.

6. Exhibit C attached herewith includes page 10 of the PRD, stating that the Telalert system has been integrated into the NOCpulse service. Page 10 describes the Telalert system that provides the functionality of the presently claimed invention. As stated above, the PRD is dated prior to October 19, 2000.

7. Based on the above description and as is evident from the attached exhibits, the reduction to practice of the subject matter described in the present application was prior to October 19, 2000.

9. I declare, to the best of my knowledge, that all statements made in this document are true, and that all statements made on the information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under § 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the above-identified patent application or any patent issued thereon.

Dated: 2007-10-11

David D. Faraldo II  
Name: David D. Faraldo II

**Exhibit A**

**IN THE CLAIMS**

1. A computer-implemented method comprising:  
validating configuration information specified by a user;  
storing the configuration information in a database;  
extracting at least a subset of the configuration information from the database  
based on an extraction parameter identifying one of a plurality of business  
sites; and  
generating a text-based configuration file containing the extracted configuration  
information.
2. The method of claim 1 wherein the configuration information includes  
configuration keyword information recognizable by a messaging application.
3. The method of claim 1 wherein the database is a relational database.
4. Canceled.
5. The method of claim 1 further comprising:  
configuring a messaging application using the configuration file.
6. The method of claim 1 further comprising periodically generating additional text-based configuration files according to a schedule.

7. The method of claim 1 wherein the database includes configuration information for the plurality of business sites across a plurality of networks.
8. The method of claim 1 wherein the configuration information is used by at least one messaging application to transmit a message to a destination.
9. The method of claim 1 wherein the configuration information includes a contact.
10. The method of claim 1 wherein the configuration information includes a contact method.
11. The method of claim 1 wherein the configuration information includes a method type.
12. The method of claim 1 wherein the configuration information includes a contact group.
13. The method of claim 1 wherein the configuration information includes a contact group member.
14. The method of claim 1 wherein the configuration information includes a schedule.
15. The method of claim 1 wherein the configuration information includes a strategy.
16. The method of claim 1 wherein the configuration information includes a pager type.

17. The method of claim 1 further comprising: creating at least one include file for a plurality of sections within the configuration file.
18. The method of claim 1 further comprising:  
compiling the configuration file into a compiled file at a later time.
19. The method of claim 1 further comprising:  
updating the configuration information stored in the database through a portal.
20. The method of claim 1 wherein the extracting is performed over a secure communication pathway.
21. A machine-readable medium that provides instructions, which when executed by a processor, cause said processor to perform a method comprising:  
validating configuration information specified by a user;  
storing the configuration information in a database;  
extracting at least a subset of the configuration information from the database  
based on an extraction parameter identifying one of a plurality of business sites; and  
generating at least one text-based configuration file containing the extracted configuration information.
22. The machine-readable medium of claim 21, wherein the configuration information includes configuration keyword information recognizable by a messaging application.

23. The machine-readable medium of claim 21, wherein the database is a relational database.
24. Canceled.
25. The machine-readable medium of claim 21, wherein the method further comprises configuring a messaging application using the configuration file.
26. The machine-readable medium of claim 21, wherein the generating of the text-based configuration file is performed periodically according to a schedule.
27. The machine-readable medium of claim 21, wherein the database includes configuration information for the plurality of business sites across a plurality of networks.
28. The machine-readable medium of claim 21, wherein the configuration information is used by at least one messaging application to transmit a message to a destination.
29. The machine-readable medium of claim 21, wherein the configuration information includes a set of one or more contacts, contact methods, method types, contact groups, contact group members, schedules, strategies, and pager type.
30. The machine-readable medium of claim 21, wherein the method further comprises: creating at least one include file for a plurality of sections within the configuration file.

31. The machine-readable medium of claim 21, wherein the method further comprises:  
compiling the configuration file into a compiled file at a later time.
32. The machine-readable medium of claim 21, wherein the method further comprises:  
updating the configuration information stored in the database through a portal.
33. The machine-readable medium of claim 21, wherein the receiving is performed over a secure communication pathway.
34. An apparatus comprising:  
a database, the database to store configuration information specified by a user;  
and  
a configuration generator, the configuration generator to validate the configuration information to be saved in the database, to extract at least a subset of the configuration information over a communication pathway from the database based on an extraction parameter identifying one of a plurality of business sites, and to generate at least one text-based configuration file including the extracted configuration information.
35. The apparatus of claim 34, further comprising:  
a portal, the portal to provide access to a user to update the configuration information.

36. The apparatus of claim 34, wherein the configuration information includes configuration keyword information recognizable by a messaging application.
37. The apparatus of claim 34, wherein the configuration information includes a set of one or more contacts, contact methods, method types, contact groups, contact group members, schedules, strategies, and pager type.
38. The apparatus of claim 34, wherein the database is a relational database.
39. Canceled.
40. The apparatus of claim 34, further comprising:  
a compiler to generate a binary configuration file after generation of the configuration file.
41. The apparatus of claim 40, wherein the generation of the binary configuration file is executed from a scheduling tool.
42. The apparatus of claim 41, wherein the scheduling tool is at least one from a group consisting of a windows scheduler or a unix cron.
43. The apparatus of claim 34, wherein the configuration generator is further to generate at least one include file for a plurality of sections within the configuration file.
44. The apparatus of claim 34, wherein the communication pathway is a secure communication pathway.

45. An apparatus comprising:
  - a storage device, the storage device to store configuration information specified by a user; and
  - a processor coupled with the storage device over a communications pathway, the processor to validate the configuration information to be saved in a database, to extract at least a subset of the configuration information from the database based on an extraction parameter identifying one of a plurality of business sites, and to generate at least one text-based configuration file including the extracted configuration information.
46. The apparatus of claim 45, wherein the configuration information includes configuration keyword information recognizable by a messaging application.
47. The apparatus of claim 45, wherein the configuration information includes a set of one or more contacts, contact methods, contact groups, schedules, strategies, and pager type.
48. The apparatus of claim 45, wherein the storage device is a relational database.
49. Canceled.
50. The apparatus of claim 45, further comprising:
  - a compiler to generate a binary configuration file after generation of the configuration file.

51. The apparatus of claim 50, wherein the generation of the binary configuration file is executed from a scheduling tool.
52. The apparatus of claim 51, wherein the scheduling tool is one from a group consisting of a windows scheduler or a unix cron.
53. The apparatus of claim 45, wherein the processor is further to generate at least one include file for a plurality of sections within the configuration file.
54. The apparatus of claim 45, wherein the communication pathway is a secure communications pathway.

55-56. (Not Entered)

57. (Previously Presented) The method of claim 7 wherein the configuration information extracted from the database is specific to one of the plurality of business sites.
58. (Previously Presented) The method of claim 1 wherein validating configuration information comprises:  
performing at least one of a referential check, a value validation check and a typographical error check.

Exhibit B



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**NOCpulse Internet Operational Support Service  
Product Requirements Document**

**Draft Version 8.30.00**

## Exhibit C



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### Escalations

The notification component is an automated system that escalates notifications based on the following configurable parameters:

- Time delay between notification and acknowledgement
- Severity of problem for which the notification is being sent
- Notification schedules for onstaff administrators

If a notification goes unacknowledged for a period of time, that notification will be resent to the next contact on the escalation tree. The parameters for escalations and the contact lists are configurable by the customer. NOCpulse has also implemented a schedule interface to allow schedule rotations to be entered into the system. Notifications are automated based on those schedules.

When a notification reaches a certain point, a trouble ticket will be opened to track and further escalate the issue.

### Communication Channels

NOCpulse has integrated the Telamon Telalert system to handle notifications to customers. In the event of a breach of a threshold, NOCpulse notifies customers through the following communication channels:

- Email
- Phone (IVR)
- Pager

If a customer requires additional notification communication channels, Telalert supports notifications through command line destinations and electronic sign boards. These channels are not widely used in the industry at this time, however. Though, the command line destination does allow for automation of processes for which NOCpulse and the customer write scripts that are triggered by certain notifications. Cool feature!

### Detailed Notification Specifications:

#### Notification Configuration Interface Specifications

Threshold Specifications (What are the thresholds that can be set to trigger a notification)

Notification Specifications (What triggers a notification)

Telamon Specifications (What Telamon specs need to be doc'd)

### 24x7 Network Operations Center Services

The fourth core component of the NOCpulse IOSS is the staffed 24x7 Network Operations Center Services. NOCpulse maintains a 24x7 staff of NOC personnel to be on call for customer concerns and help desk issues. In addition, NOC personnel are monitoring customer sites real time and can assist in escalation issues and trouble ticketing in the event that customers do not acknowledge notifications.



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## **NOCpulse Internet Operational Support Service Product Requirements Document**

**Draft Version 8.30.00**



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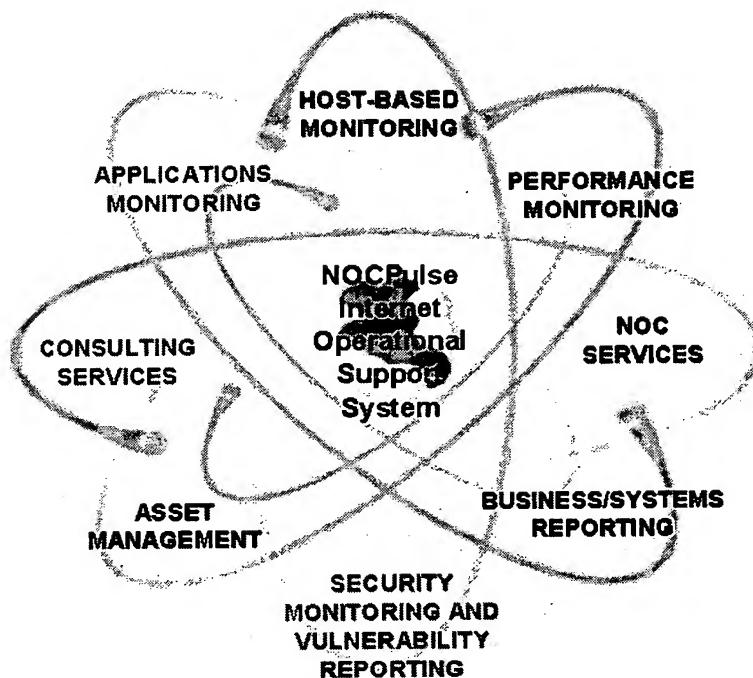
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## Internet Operational Support System Definition

This document defines NOCpulse's Internet Operational Support System (IOSS) in technical implementation detail. The IOSS is a complete set of Internet infrastructure management services built upon a scalable, automated, Web-based foundation. The goal of the IOSS is to significantly reduce the pain points of managing and supporting business critical Internet infrastructure.

The following illustration depicts the fundamental Internet infrastructure management features of the IOSS. Features in black are currently under development in a project codenamed Cheyenne. Feature in grey will be developed after Cheyenne.



### The Premise of the IOSS

NOCpulse approaches the Internet infrastructure support problem from a holistic point of view. Rather than develop a point solution product for each infrastructure management component, NOCpulse analyzed the individual problems from the business critical point of view of supporting customers, including business partners, suppliers, and traditional customers. How does a business win and keep customers?

To be successful on the Internet, businesses must meet three critical criteria: Uptime, Scalability and Performance.

A site must be up and operational 24x7. This is mandatory. If the site is down, customers will go to a competitor.

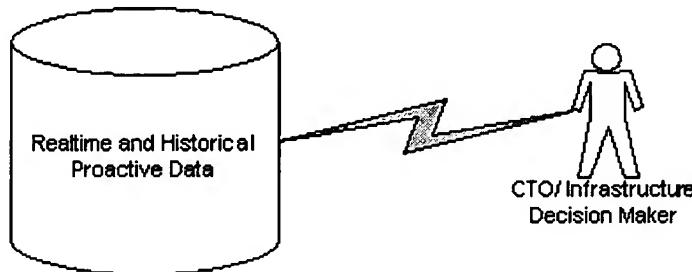


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Scalability and performance also retains or diverts customers. If a site is inaccessible during peak hours or a page takes more than 8 seconds to download, customers will go to a competitor.

NOCpulse identified that proactive information is the most useful tool that empowers a business to meet these major Internet infrastructure requirements.

Proactive information provides for informed and rational capital expenditures, capacity planning and administrative support hiring decisions. Without proactive knowledge, administrative teams are often in a fire-fighting mode, reacting to the latest hardware failure or run out in capacity.



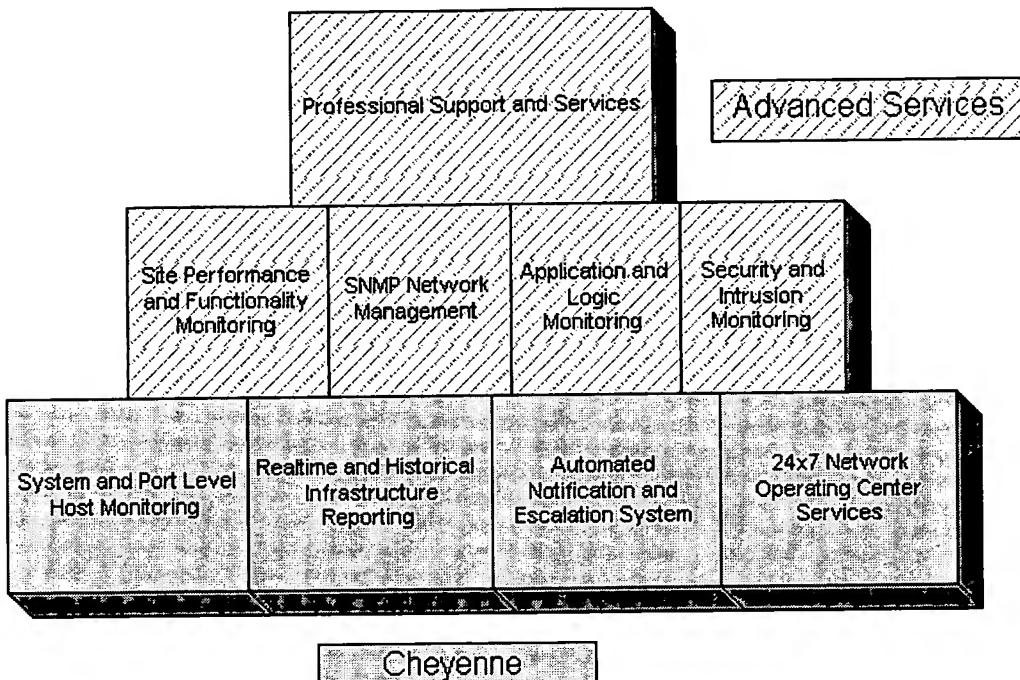
However, obtaining proactive and **meaningful** data tends to be one of the most significant pain points of supporting an Internet infrastructure.

**The goal of the NOCpulse IOSS is to reduce the operational pain-points of managing business-critical Internet infrastructure through the use of scalable, Web access to proactive infrastructure information.**

## Cheyenne

The first project phase of NOCpulse's Internet Operational Support System is codenamed Cheyenne. Cheyenne is a combination of the following components:

- A foundation layer consisting of automated monitoring, reporting, notification and NOC services.
- An advanced services layers consisting of application and performance monitoring, and future services that sit atop the foundation layer.



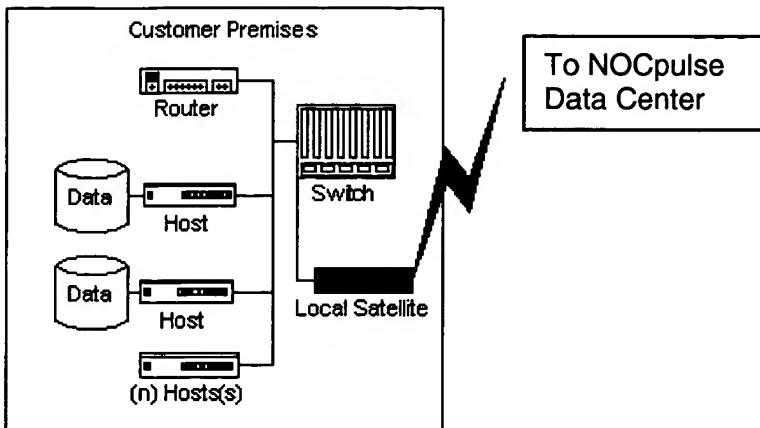
The remaining focus of this document details the foundation components of the IOSS platform, which is pictured above in solid grey. Some discussion will occur about the Advanced Services, but most of these services are outside the scope of version 1.

### System and Port Level Host Monitoring

The first component of the IOSS platform being developed in Cheyenne is the System and Port Level Host Monitoring, more easily referred to as Host-Based Monitoring. Host based monitoring captures pertinent health and status information at the server or device level. This information serves as the basis for all reports that a customer can generate.

In addition, thresholds can be set on the data being returned. Threshold exceptions feed into the automated notification component of Cheyenne, triggering alerts that feed up a customer configurable escalation path. Once configured, escalations happen automatically based on the time limits and settings entered by the customer.

The host data is gathered through a Linux box that is plugged into the Customer's network through a subnet switch. Access to each host machine is achieved through an SSH agent configured on a non-privileged port. That being a port number above 1024. The following illustration depicts the basic integration of a NOCpulse Scout with a customer's Internet infrastructure.



Data collected by the Scout is sent through the customer's network from a VPN agent installed on the Scout to a VPN client at the NOCpulse data center. The data is collected and stored at the data center for the reporting and trending functionality provided through the Customer Portal.

#### **Detailed Host Monitoring Specifications:**

[Monitoring Hardware Specifications](#)

[Monitoring Software Specifications](#)

[System Monitoring Specifications](#)

[Port Monitoring Specifications](#)

[Configuration Interface Specifications](#)

[SSH Specifications](#)

[VPN Specifications](#)

[Database Specifications](#)

## **Realtime and Historical Infrastructure Reporting**

Realtime and historical reporting capabilities are provided to the Customer through the NOCpulse Command Center, a Web-based portal. Access to customer data is controlled by company name, username and password login. This customer login data is stored encrypted in the database, as opposed to clear text passwords, and is centrally available to all components within the NOCpulse Command Center.

### **Realtime Reports**

The realtime data views are host-based statistics of the infrastructure as it is currently operating. These same statistics are also being monitored by the NOC personnel. The following screenshot shows what the right-now view of data looks like through the Command Center.



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The screenshot shows the NOCpulse Operations Center interface. At the top, there's a menu bar with File, Edit, View, Go, Communicator, and Help. Below the menu is a toolbar with Back, Forward, Reload, Home, Search, Netscape, Print, Security, Shop, and Stop buttons. The address bar shows the URL [http://roadsideable.COM/awui/5\\_operations\\_host.html](http://roadsideable.COM/awui/5_operations_host.html). A bookmarks bar follows, containing links for Bookmarks, Location, Instant Message, WebMail, Radio, People, Yellow Pages, Download, Calendar, Channels, and RealPlayer.

The main title bar says "Operations Center". Below it is a navigation bar with tabs for Operations Center, Reporting Center, Admin Center, and Help Center. The Operations Center tab is selected. On the left, there's a hierarchical tree view under "Hosts on Monitor A" showing nodes like "Satellite A", "andromeda", "fractal", "gehn", "Service 1", "mandelbrot", "myst", "Service 1", "Service 3", "Service 4", "Service 5", "Service 6", "oradev", "rose", and "vautrin".

The central area displays a table titled "Hosts on Monitor A" with the following data:

Host	Address	Description	Attempts	Notify Interval
andromeda	192.168.0.2	Andromeda (satellite)	1	1h 0m 0s
fractal	192.168.0.20	A Linux Box	1	1h 0m 0s
gehn	192.168.0.11	A Sun/Solaris Box	1	1h 0m 0s
mandelbrot	192.168.0.12	A Windows NT 2000 Box	1	1h 0m 0s
myst	192.168.0.20	A Linux Box	1	1h 0m 0s
oradev	192.168.0.6	Oracle Development Server	1	1h 0m 0s
rose	192.168.0.1	NOCpulse.net Intranet Server	1	1h 0m 0s
vautrin	192.168.0.28	A Linux Work Station	1	1h 0m 0s

At the bottom of the interface, there's a status bar with "Document: Done" and various browser control buttons.

Host status is displayed in the Hosts table with a color bar of either green, yellow or red, which denotes ok, warning or critical, respectively. Details for each host can be accessed by clicking the host name in the Hosts table, or by opening the hierarchical host tree to the left of the Hosts table.

## Historical Reports

Through the Command Center, the customer can generate historical reports of their infrastructure data. Most of these reports are stored as the result of a predetermined query, usually daily, weekly and monthly, so as to minimize database access and computation time. However, Customers can take full advantage of the interface to build their own reports. The following screenshot depicts the interface that facilitates the reporting functionality.



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This interface generates reports based on canned or customer configured queries. Canned, or pre-stored, queries exist for daily and weekly reports. These are stored in an Oracle database, but there are plans for storing this data in XML.

Alternately, customers can specify a query based on a specific infrastructure view (monitor, host, port; inside out monitoring) or a customer view (performance and functionality of website; outside in monitoring). These parameters can be specified for any date range, as long as there was data collected for that range. We should check that an appropriate date is entered by the customer before running the query.

### **Detailed Reporting Specifications:**

#### Reporting Interface Specifications

Reporting Specifications (Reports that can be run and why)

Database Table Specifications

### **Notification Services**

An additional core component of the NOCpulse IOSS is the acknowledgement based notification and escalation system. This system automatically notifies a customer when a monitored host or service exceeds a threshold. Thresholds are preset out of the box, but



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customers can configure each threshold through the configuration tab of the Customer Portal.

## **Escalations**

The notification component is an automated system that escalates notifications based on the following configurable parameters:

- Time delay between notification and acknowledgement
- Severity of problem for which the notification is being sent
- Notification schedules for onstaff administrators

If a notification goes unacknowledged for a period of time, that notification will be resent to the next contact on the escalation tree. The parameters for escalations and the contact lists are configurable by the customer. NOCpulse has also implemented a schedule interface to allow schedule rotations to be entered into the system.

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### Notification Configuration Interface Specifications

Threshold Specifications (What are the thresholds that can be set to trigger a notification)

Notification Specifications (What triggers a notification)

Telamon Specifications (What Telamon specs need to be doc'd)

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The fourth core component of the NOCpulse IOSS is the staffed 24x7 Network Operations Center Services. NOCpulse maintains a 24x7 staff of NOC personnel to be on call for customer concerns and help desk issues. In addition, NOC personnel are



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monitoring customer sites real time and can assist in escalation issues and trouble ticketing in the event that customers do not acknowledge notifications.

### **Detailed NOC Specifications:**

Support Staff Interface Specifications

Systems Specifications

Locations

Procedures

## **Customer Portal**

Sprinkled throughout. More.

## **Advanced Services**

NOCpulse is planning several advanced services to plug in to the core architecture. These advanced services include:

- Site Performance and Functionality Testing
- Network Monitoring
- Application Monitoring
- Security Intrusion Monitoring

Site Performance and Network Monitoring will most likely be built in house.

Application and Security Monitoring will most likely be provided through partnerships.

More

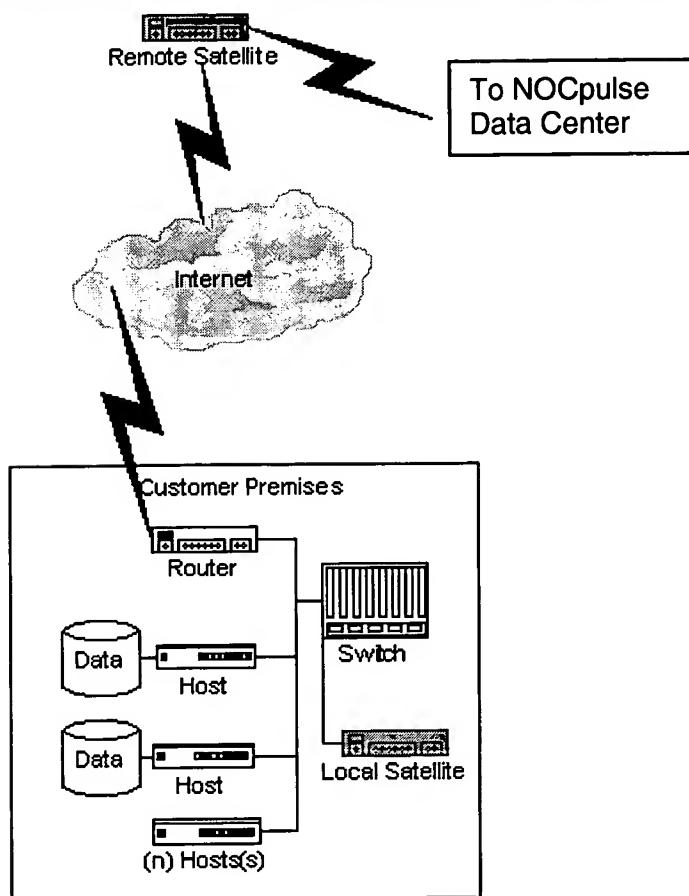
## **Site Performance and Functionality Testing**

The first advanced service, which will be ready in version 1, Site Performance and Functionality Testing allows a customers website to be monitored from an Internet perspective.

For example, customer ACME sells widgets online. ACME's customers rely on the online site to supply the widgets, which are in turn used to build a product sold by that customer. If ACME's site, or a portion thereof, goes down, orders cannot be placed, and ACME's customer suffers large financial consequences. ACME, therefore, has an interest to know if and when any portion of their site ceases to work properly, from their customer's point of view.

NOCpulse's Site Performance and Functionality Testing advanced service provides customers with the ability to test their site from the customer point of view. The following

Illustration depicts a Remote Satellite in relation to a customer's website.



### Remote Satellite v. Local Satellite

A Remote Satellite differs significantly from a Local Satellite in the metrics it is programmed to retrieve.

A Local Satellite collects system and port metrics of the physical Internet infrastructure from within the local area network.

A Remote Satellite collects the following Web server metrics through the Internet:

- Latency
- Total Time
- Throughput
- DNS Time
- Transfer Rate
- Connect Time

It can also check the returned content of a page, check subsidiary pages, make sure all links on a page work and test post requests and http authorizations.



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Metric	Description
Latency	Set thresholds on Web server time from authentication to 1 <sup>st</sup> byte received by the requestor.
Total Time	Set thresholds on the total time for a request to be served from DNS lookup to last object fetched.
Throughput	Advanced Feature: Set thresholds on measurement of Web server
DNS Time	Advanced Feature: Set thresholds on the time to resolve a host name to an IP address using Domain Name Service (DNS).
Transfer Rate	Advanced Feature: Set thresholds for the rate (bytes/sec) that data is sent from Web server 1 <sup>st</sup> byte received to last byte received.
Connect Time	Advanced Feature:

NOTE: Advanced Features do not appear in the main configuration page, but behind an advanced button.

## Satellite Hardware Specifications

The NOCpulse monitoring box has the following hardware specifications:

<b>Vendor</b>	Rackable
<b>Dimensions</b>	3.5"H x 17.5"W x 14"D 2U Telco rack mount
<b>Processor</b>	Pentium III 500+ Mhz (Single)
<b>Memory</b>	256 MB SDRAM
<b>Hard Disk Drive</b>	2 – 9 to 18GB SCSI Drives (Software Mirrored RAID 1)
<b>Floppy Drives</b>	1 - 48x CDROM 1 - 3.5" Disk Drive
<b>Network Interface</b>	2 - 10 BASE-T/100 BASE-TX Network Interface Cards (NIC)
<b>Backup Interface</b>	1 – Modem; Vendor to be established
<b>Box Design</b>	The front faceplate of the system will be of our design. Current plans are for a brightly colored front panel displaying the NOCpulse logo with flashing lights to simulate the pulse. If necessary, the system vendor's logo will also appear on the box. The goal of the design is that installed NOCpulse satellites will draw attention from customers sharing collocation facilities.



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## Software Specifications

What is Installed on NP Box	Description
Operating System	Red Hat Linux 6.2
Monitoring Software and plugins	Netsaint 0.0.5-2 with plugin package 1.2.8-4 check_ntstat.c (for NT info collection) plugin.ini (configuration file) check.py command.py plugin.py shell.py ssh.py
VPN Software	To Be Decided JM
RAID Software	Info coming JS
Additional Software	Tripwire 2.2.1

What is installed on Host box	Description
Unix Operating Systems	SecureShell (SSH) 1.2.28 on a non-privileged port (> 1024)
NT Operating Systems	ntstat 0.5

## Additional Software Settings

The following software settings are implemented to increase the security of the each Satellite box.

- All services in **inetd** are disabled
- No RPC services are running
- Process accounting is enabled
- Only two access accounts created:
  1. User account = **nocpulse** (for remote secure shell access to client boxes)
  2. Trusted Administration account = **admin**

## SSH Specifications

This section discusses the technical implementation details of the SSH client for the customer's host machines.

## VPN Specifications

This section discusses the technical implementation details of the VPN software installed on the Satellite and at the NOCPulse data center.



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## System Monitoring

What's monitored	Description
ICMP Echo (Ping)	Is the host up or not.
Disk Utilization	How much disk space is being used, how much is free.
CPU Utilization	% usage of the CPU
Load	
Memory Utilization	Amount usage in Kb of virtual memory.
Swap Space	Size of allocated swap space.
Number of Users	The number of connected users to the system.
Number of Processes	The number of processes running on the system.

## System Thresholds

Monitored	Threshold Level	Default Threshold Values
Host Ping	Up Down Unreachable	None
Disk Utilization	OK Warning Critical Unknown	< 75% 75% 90%
CPU Utilization	OK Warning Critical Unknown	< 70% 70% 90%
Load	OK Warning Critical Unknown	< 0.8 0.8 1
Memory Utilization	OK Warning Critical Unknown	0 0
Swap Space	OK Warning Critical Unknown	> 20% free 20% free 10% free
Number of Users	OK Warning Critical Unknown	< 10 users 10 users 20 users
Number of Processes	OK Warning Critical Unknown	< 400 processes 400 processes 700 processes



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## Port Monitoring

We are supporting all NetSaint port monitoring plugins. Some of these may never be used by a customer, but they are supported by our system.

The Port numbers listed below are typical configurations. Customers may have these and custom services assigned to different port numbers. Configurations can vary widely.

The Measurement	Port	Description
check_breeze	NP (no port)	Reports the signal strength (%) of Breezecom wireless equipment installed on host.
check_dig	NP	Tests host DNS using UNIX dig command, which is more informative than nslookup.
check_disk_smb	NP	Checks used disk space (%) of local file system and generates an alert if percentage is above one of the threshold values. (In Perl)
check_dns_resolution	NP	Obtains IP address for specified host/domain query using nslookup. Can specify optional DNS server, or default to specified /etc/resolv.conf.
check_ftp	21	Tests an FTP connection with the host and generates an alert if answer time is above threshold values.
check_hpjd	NP	Tests the STATUS of an HP printer with a JetDirect card. (Ucd-snmp must be installed on the computer running the plugin.)
check_http	80 (http) 443 (https)	Tests the HTTP service on the host. Tests normal (http) and secure (https) servers and generates an alert if answer time is above threshold values. Follows redirects, searches for strings and regular expressions, checks connection times, and reports on certificate expiration times.
check_imap	143	Tests the IMAP4 service on the specified host and generates an alert if answer time is above threshold



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		values.
check_ircd	6667	Tests IRC daemon on host and returns an alert if number of users is above the threshold values.
check_nntp	119	Tests the network news service on host and generates an alert if answer time is above threshold values.
check_nothing	NP	
check_ntp	NP	Tests Network Time service and generates an alert when offset (s) is above threshold values.
check_oracle	NP	Tests remote or local TNS status and local Database status.
check_pop	110	Tests POP mail service on host and generates an alert if answer time is above threshold values.
check_postgresql	5432	Tests postgres SQL service on host and generates an alert if answer time is above threshold values.
check_real	554	Tests the IMAP4 service on the specified host (at port 554) and generates an alert if answer time is above threshold values.
check_rpc		Tests if a RPC service is registered and running on host using rpcinfo command.
check_smtp	25	Tests the SMTP mail service on host and generates an alert if answer time is above threshold values.
check_snmp_NEEDS_WORK		Not working yet. Will test snmp service on host and be used in conjunction with Network monitoring (V2).
check_ssh	22	Tests SSH service on host and generates an alert if request timesout.
check_tcp	Any	Tests TCP connections with host and generates an alert if answer time is



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		above threshold values.
check_time	NP	Tests time port on host and generates an alert if answer time OR variance time is above threshold values.
check_udp	Any	Tests UDP connection on host and generates an alert if answer time is above threshold values.

## Port Thresholds

## NOCpulse Configuration Tab

Welcome, Username	Operations Center	Reports	NOCPulse Configuration	Support								
<a href="#">MyAccountName</a>	<a href="#">Select Function</a>											
<p><b>MyAccountName</b></p> <table> <tr> <td>Description</td> <td><input type="text" value="Read only"/></td> </tr> <tr> <td>Default Escalation Strategy:</td> <td>First Acknowledge</td> </tr> <tr> <td>Acknowledgement Wait:</td> <td>5 minutes</td> </tr> <tr> <td>Primary Schedule:</td> <td>Default Schedule</td> </tr> </table>					Description	<input type="text" value="Read only"/>	Default Escalation Strategy:	First Acknowledge	Acknowledgement Wait:	5 minutes	Primary Schedule:	Default Schedule
Description	<input type="text" value="Read only"/>											
Default Escalation Strategy:	First Acknowledge											
Acknowledgement Wait:	5 minutes											
Primary Schedule:	Default Schedule											
<p>(Customer Admin View)</p>												



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## Context (Permission: Customer Admin)

The Account form displays as the default screen when a customer with administrator-level permission clicks the NOCpulse Configuration tab. (The default screen for a NOCpulse admin is shown on page 14.)

## Contents

**Application Nav Bar** Operations Center | Reports | NOCpulse Configuration | Support

**Local Navigation Bar** Account Name Read-only display  
Select Function Drop-down list

**Work Area** Default display:  
Account Description Read-only display  
Default Escalation Strategy Read-only display  
Acknowledgement Wait Read-only display  
Primary Schedule Read-only display

## Local Nav Interaction

Action	Result
1. Select Configure Monitoring	Displays Monitor Configuration lists in Local Nav Bar
2. Select Configure Notifications	Displays Notification Configuration lists in Local Nav Bar



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## NP Admin Configuration Menu

The screenshot shows the NOCpulse Admin View. At the top is a navigation bar with tabs: Welcome, Username, Operations Center, Reports, NOCpulse Configuration (which is selected), and Help. Below the navigation bar are two dropdown menus: Account Name and Selected Function. The main content area is titled "NOCpulse Configuration" and contains links for "Introduction" and "Instructions". A note at the bottom right says "(NOCpulse Admin View)".

### Context (Permission: NP Admin)

This displays as the default screen when a NOCpulse user with administrator-level permission clicks the NOCpulse Configuration tab. (The default screen for a customer admin is shown on page 13.)

### Contents

Application Nav Bar	Operations Center   Reports   NOCpulse Configuration   Support
Local Navigation Bar	Select Account Select Function
Work Area	Default display: Welcome/Instructions

### Interaction

Action	Result
1. Select Account	Displays Account info in Main Account Form Enables Select Function list

The screenshot shows the NOCpulse Admin View with the Main Account Form displayed. The form includes fields for Account Name (Yahoo!), Description (Yahoo! United States Servers), Default Escalation Strategy (First Administrator), Administration Work (1 minute), and Priority Response (2nd). A note at the bottom right says "(NOCpulse Admin View)".



2. Select Configure Monitoring Bar	Draft Version Only Displays Monitor Configuration lists in Local Nav
3. Select Configure Notifications	Displays editable Account Form Displays Notification Configuration lists in Local Nav Bar Displays editable Account Form



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## Configure Monitoring (Zope)

Customer Admin View

The screenshot shows the NOCpulse web interface for a customer account named "MyAccountName". The main title bar includes "Welcome, Username", "Operations Center", "Reports", "NOCpulse Configuration", and "Help". Below the title bar, there is a navigation bar with dropdown menus for "MyAccountName", "Monitoring", "Selected Service", "Selected Group", "Selected Host", and "Selected Service". The main content area is titled "MyAccountName" and contains a form for account configuration. It includes fields for "Description" (set to "Customer Account Description"), "Default Escalation Strategy" (set to "First Acknowledge"), "Acknowledgement Wait" (set to "1 minute"), and "Primary Schedule" (set to "24x7"). A note "(Customer Admin View)" is visible at the bottom of the content area.

NOCpulse Admin View

The screenshot shows the NOCpulse web interface for an account named "Yahoo 1". The main title bar includes "Welcome, Username", "Operations Center", "Reports", "NOCpulse Configuration", and "Help". Below the title bar, there is a navigation bar with dropdown menus for "Yahoo 1", "Monitoring", "Selected Service", "Selected Group", "Selected Host", and "Selected Service". The main content area is titled "Yahoo 1" and contains a form for account configuration. It includes fields for "Description" (set to "Yahoo United States Servers"), "Default Escalation Strategy" (set to "First Acknowledge"), "Acknowledgement Wait" (set to "1 minute"), and "Primary Schedule" (set to "24x7"). A note "(NOCpulse Admin View)" is visible at the bottom of the content area.

## Contents

**Application Nav Bar** Operations Center | Reports | NOCpulse Configuration | Support

**Local Navigation Bar** Account Name

- Function selection list
- Monitor selection list
- Group selection list
- Host selection list
- Scout selection list

- CUSTOMERS: read-only display
- NOCPULSE: selection list of all accounts
- Set to Configure Monitoring
- Filtered by account
- Filtered by monitor selection
- Filtered by monitor and/or group selection
- Filtered by host selection



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	Cfg button [Sys Admin]	NP Admin only
<b>Page Header</b>	Account name Update confirmation message	read-only display appears after user clicks "Save Changes"
<b>Form Fields</b>	Account description Default Escalation Strategy Acknowledgement Wait Primary Schedule Save Changes	Editable for NOCpulse ONLY Drop-down list Drop-down list Drop-down list Submit button
<b>Account Management</b>	Time Period Definitions Asset Management	text link or button text link or button

## Navigation Interaction

Action	Result
1. Select monitor from list	Filters Group and Host selection lists Enables Group and Host selection lists NP ONLY: "Add Monitor" option displays blank form
2. Select group from list	Displays Group form with data for selected group Filters Host selection list
3. Select host from list	"Add Group" option displays a blank form Displays Host form with data for selected host Enables and filters Scout selection list
4. Select scout from list	"Add Host" option displays a blank form Displays Scout detail form with data for selected scout
5. Click cfg button	"Add Scout" option displays a blank form Generates new config file based on saved changes Displays confirmation dialog box

## Account Form Interaction

Action	Result
1. NOCpulse ONLY: enter text in Description field	
2. Select Escalation Strategy	Determines when system regards notification as complete
3. Specify Acknowledgement Wait	Specifies how long to wait for acknowledgement before escalating notification to next level in strategy
4. Select Primary Schedule	Serves as default schedule for contacts and contact methods if no other schedule is specified at that level
5. Click Update Record	Saves any changes to the Account record Displays confirmation message in header



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## [Account Management Options]

Action	Result
1. Click Time Period Definitions	Displays Time Period Window
2. Click Asset Management	Displays Asset Management Window



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## Monitor Administration Form

The screenshot shows the NOCpulse Configuration interface. The top navigation bar includes 'Operations Center', 'Reports', 'NOCpulse Configuration', and 'Help'. Below the navigation is a toolbar with buttons for 'Account Name', 'Monitor B', 'Selected Group', 'Selected Host', 'Selected metric', and 'Print'. The status bar at the bottom displays 'Last Update: 6/27/00 12:08:20 PDT', 'Session user: X-1000', and 'Current Time: 6/27/00 12:08:20 PDT'.

The main work area is titled 'Monitor B' and contains the following fields:

- Account Name: [Text input]
- Description: [Text input]
- URL: [Text input]
- Administrator Email: [Text input]
- Administrator Pager: [Text input]
- hosts.cfg location: [Text input]

Below these fields are several sections with their descriptions:

- Scheduling**: Program Mode, Interval Length, Intercheck Delay, Service Interleave Factor, Maximum Concurrent Service Checks, Seconds between Service Process Reap Passes, Seconds between Service Passes, Use Aggressive Host Check's
- Command Processing**: Check External Command Cue, Number of Intervals between Command Cue Checks, Location of External Command Cue File
- Logging**: Location of Main Log File, Location of Status Log, Directory in which Logs are stored, Log Rotation Method, Log Level, Use Syslog Facility, Syslog Log Level, Log Notifications, Log Services Retries, Log Host Retries, Log Event Handlers
- Global Event Handlers**: Host Event Handler, Service Event Handler
- Misc**: Location of shutdown temp file for plugins, #SERVICES# more definitions for generic service notifications

At the bottom right of the form are 'Save Changes' and 'De-Activate' buttons.

### Context (Permission: NP Admin only)

This form displays in the work area when you select an option from the Monitor selection drop-down list. If you select a specific monitor, data for that monitor will populate the form; the button at the bottom of the form will read "Save Changes". Host Group, Host, and Scout selection lists will be filtered to show only those options appropriate for the selected monitor. If you select the "Add New Monitor" option, a blank form will display with a "Save" button at the bottom.

NOTE: Customer admins will not see this form. They will be able to select a specific monitor from the selection list (in order to filter Host and Scout lists with appropriate options), but they will not see an "Add New Monitor" option, and the Edit Monitor form will not display.

### Contents

<b>Header</b>	Monitor Name Monitor Location Update Confirmation Message
<b>Account Form</b>	Account Name Description Administrator contact info .cfg file location Scheduling
Command Processing	Read-only display of current account name Editable text field Email & Pager text fields Editable text field program mode, interval length, intercheck delay, service interleave factor, maximum concurrent service checks, seconds between service process reap passes, seconds between service passes, use aggressive host checking check external command cue, number of intervals between command cue checks, location of external command cue file



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Logging	location of main log file, location of status log, directory in which logs are stored, log rotation method, log level, use syslog facility, syslog log level, log notifications, log service retries, log host retries, log event handlers
Global Event Handlers	host event handler, service event handler
Misc	location of stdout temp file for plugins \$SERVICES\$ macro definition for generic service
Buttons	notifications Save/Save Changes De-Activate

## Monitor Form Interaction

Action	Result
1. Enter text, select options from lists	
2. Click Save/Save Changes button	Saves new record or modifications and displays confirmation message in header
3. Click De-Activate button	Displays confirmation message in header Buttons change to "Return to Account Form" and "Re-Activate"



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## Group Administration Form

The screenshot shows a web-based application interface for 'NOCpulse Configuration'. At the top, there's a navigation bar with tabs for 'Operations Center', 'Reports', 'NOCpulse Configuration', and 'Help'. Below the navigation bar, there are several dropdown menus and buttons: 'Selected Monitor', 'Selected Group', 'Selected Host', 'Selected Metric', and 'Edit'. A status bar at the bottom displays 'Last Update: 08/20/2018 10:20:29 AM' and 'Current Time: 08/20/2018 10:20:29 AM'. The main content area is titled 'Host Group 3' and contains the following fields:

- Account Name: Monitor B
- Group Name: [input field]
- Description: [input field]
- Contact Groups: [dropdown list] ▼
- Hosts: [dropdown list] ▼

At the bottom of the form are two buttons: 'Save Changes' and 'De-Activate'.

### Context (Permission: NP Admin, Customer Admin)

This form displays in the work area when you select an option from the Group selection drop-down list. If you select a specific host group, data for that group will populate the form; the button at the bottom of the form will read "Save Changes". Host and Scout selection lists will be filtered to show only those options appropriate for the selected group. If you select the "Add New Group" option, a blank form will display with a "Save" button at the bottom.

### Contents

<b>Header</b>	Group Name Update Confirmation Message	
<b>Group Form</b>	Account Name Monitor Name Group Name Description Contact Groups Hosts Buttons	Read-only display of current account name Read-only display of current monitor name Editable text field Editable text field Selection list Selection list Save/Save Changes De-Activate

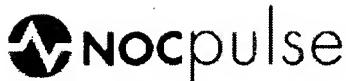
### Group Form Interaction

Action	Result
1. Enter text	
2. Select Contact Group(s) from list	Group(s) remain highlighted in list
3. Select Host(s) from list	Host(s) remain highlighted in list
4. Click Save/Save Changes button	Displays confirmation message in header



5. Click De-Activate button

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Displays confirmation message in header  
Buttons change to “Return to Account Form”  
and “Re-Activate”



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## Host Administration Form

The screenshot shows a web-based application titled "NOCpulse". The top navigation bar includes links for "Operations Center", "Reports", "NOCpulse Configuration", and "Help". Below the navigation is a toolbar with buttons for "Add New Host", "Account Name", "Select Monitor", "Select Group", "Select Host", "Select Metric", and "Edit". A status bar at the bottom displays "Last Update 08/20/2013 02:30:20 PDT", "Last Update 08/20/2013 02:30:20 PDT", and "Current Time 08/20/2013 02:30:20 PDT". The main content area is titled "Host 1" and contains fields for "Account Name, Monitor B, Host Group 3", "Description", "IP Address", "Asset", "Alt tag", "Icon Image", "Host Check Command", "Max Checks", "Time Between Notifications", and "Time Period for Notifications". It also includes sections for "Notify on: Recovery", "Host Down", and "Unreachable", along with "Event Handler Command" and "Buttons" for "Save Changes" and "De-Activate".

### Context (Permission: NP Admin, Customer Admin)

This form displays in the work area when you select an option from the Host selection drop-down list. If you select a specific host, data for that host will populate the form and the Scout selection list will be filtered to show only those options appropriate for the selected host. If you select the "Add New Host" option, a blank form will display with a "Save" button at the bottom.

### Contents

<b>Header</b>	Host Name Update Confirmation Message	
<b>Host Form</b>	Account Name Monitor Name  Group Name Host Name Description IP Address or FQDN Asset Alt Tag Icon Image Host Check Command Max Checks Time Units btwn Notif. [Time Period for Notif.] [Notify on Recov, Down, Un] [Event Handler] Buttons	Read-only display of current account name CUSTOMER: Read-only display NP Admin: Selection list Selection list displays current group Editable text field Editable text field Editable text field Editable text field Editable text field Selection list Selection list Editable text field Editable text field NP Admin Only: Selection list NP Admin Only: Selection list NP Admin Only: Selection list Save/Save Changes   Delete Configuration

### Host Form Interaction

Action	Result
1. Enter text, select options from lists	



2. Click Save Changes button
3. Click De-Activate button

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Displays confirmation message in header

Displays confirmation message in header

Buttons change to “Return to Account Form” and “Re-Activate”



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## Scouts Administration Form

The screenshot shows a web-based administration interface for a 'Metric 4' configuration. The top navigation bar includes tabs for 'Operations Center', 'Reports', 'NOCpulse Configuration', and 'Help'. Below the navigation is a toolbar with buttons for 'Logout', 'Account Name', 'Selected Monitor', 'Selected Group', 'Selected Host', 'Selected Metric', and 'Edit'. A status bar at the bottom displays 'Last Update: 08/09/2012 02:23:59 PDT' and 'Config Date: 08/09/2012 02:23:59 PDT'. The main form area is titled 'Metric 4' and contains the following fields:

- Account Name, Monitor B, Host Group 3
- Host: Host 1
- Description: [Text input]
- Check Command: [Text input] Command Parameters: [Text input]
- Contact Groups: [Text input]
- Notify on Recovery: [Text input]
- Check Period: [Text input] Time Units Between Regular Checks: [Text input] Max Attempts Before Fail: [Text input]
- Time Units Between Failed Checks: [Text input] Notification Periods: [Text input]
- Notify on: Critical: [checkbox] Warning: [checkbox]
- Event Handler: [Text input]

At the bottom right of the form are 'Save Changes' and 'Cancel' buttons.

### Context (Permission: NP Admin, Customer Admin)

This form displays in the work area when you select an option from the Scout selection drop-down list. If you select a specific scout, data for that scout will populate the form. If you select the "Add New Scout" option, a blank form will display with a "Save" button at the bottom.

### Contents

<b>Header</b>	Scout Name
	Update Confirmation Message
<b>Scout Form</b>	Account, Monitor, Group
	Host
	Description
	Contact Groups
	Notify on Recovery
	Check Command
	Parameters
	Check Period
	Time Units btwn Reg Checks
	Max Attempts before Fail
	Time Units btwn Failed Chks
	Time Period for Notif.
	Notify on Critical
	Notify on Warning
	Event Handler Command
	Buttons

### Scout Form Interaction

Action	Result
1. Enter text, select options from lists	Modify record



2. Click Save Changes button
3. Click De-Activate button

Activate"

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Displays confirmation message in header  
Displays confirmation message in header  
Buttons change to "Return to Account Form" and "Re-  
Activate"



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## Time Period List

### Context (Permission: NP Admin, Customer Admin)

This list displays in the work area when you click the "Time Period Definitions" button on the Account screen.

### Contents

<b>Header</b>	Account Name
	Add Period button
<b>User List</b>	<b>Name</b>
	Description

### User List Interaction

Action	Result
1. Click Add Period button	Displays blank Time Period Form in the work area.
2. Click Name hyperlink	Displays Time Period Form in the work area with data for selected group



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## Time Period Form

The screenshot shows the 'Edit Time Periods' dialog box. At the top, there are tabs for 'Operations Center', 'Reports', 'NOCpulse Configuration', and 'Help'. Below the tabs, there are several dropdown menus and buttons for account selection. The main area is titled 'Edit Time Periods' and contains fields for 'Account Name' (with 'Name' and 'Description' sub-fields) and a 'Define Periods:' section where each day of the week has a dropdown menu. At the bottom right are 'Save Changes' and 'Cancel' buttons.

### Context (Permission: NP Admin, Customer Admin)

This form displays in the work area when you drill down on a time period hyperlink or click the "Add Period" button on the Time Period List header.

### Contents

Header	Time Period Name Update Confirmation Message
Time Period Form	Account Name      Read-only display Time Period Name      Editable text field Description      Editable text field Time Period Definitions      Editable text fields Buttons      Save/Save Changes   De-Activate

### Time Period Form Interaction

Action	Result
1. Enter text	
2. Click Save button displayed in list	Returns to Time Period list with new group
3. Click Save Changes button	Displays confirmation message in header
4. Click De-Activate button	Displays confirmation message in header Buttons change to "Return to Time Period list" and "Re-Activate"



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## Asset List

The screenshot shows the NOCpulse interface with the title bar "NOCpulse". Below it is a navigation bar with tabs: "Operations Center", "Reports", "NOCpulse Configuration", and "Help". Underneath the navigation bar is a toolbar with buttons for "Account Name", "Select Monitor", "Select Group", "Select Host", "Select Metric", and "Check". A status bar at the bottom displays "Last Update: 6/27/20 12:05:30 PDT", "Updates every 30 sec.", and "Current Time: 6/27/20 12:05:30 PDT". The main content area is titled "Asset Administration" and contains a table with the following data:

Asset ID	Lease ID	Make	Model	Serial #	Installed	Live	Location	Rack
11sd	asdad	dts	dserve	12345678	2/4/00	2/1/200	Texas	38C
21sa	dfasdi	dts	dserve	12345678	1/12/00	2/1/200	Atlanta	12
31kw	felbr	dts	dserve	12345678	2/4/99	2/1/200	Mpls	F
41wte	dfetyer	dts	dserve	12345678	2/4/00	2/1/200	Atlanta	14
51or	asdad	dts	dserve	12345678	2/4/00	2/1/200	Boston	88
61kws	felbr	dts	dserve	12345678	2/4/00	2/1/200	San Jose	34
71wte	dfetyer	dts	dserve	12345678	2/4/00	2/1/200	Texas	23B
81w3c	asdad	dts	dserve	12345678	2/4/00	2/1/200	San Jose	33
91wte	asdad	dts	dserve	12345678	2/4/00	2/1/200	San Jose	44
101or	asdad	dts	dserve	12345678	2/4/00	2/1/200	Mpls	D
111sa	asdad	dts	dserve	12345678	2/4/00	2/1/200	Atlanta	48

## Context (Permission: NP Admin, Customer Admin)

This list appears in the work area when you click the "Asset Management" button on the Account screen.

## Contents

Header	Account Name Add Asset button [Asset Location button]	NP Admin ONLY
Asset List	Asset ID Lease ID Make Model Serial Number Installation Date Live Date Location ID Rack Location	hyperlink read-only display read-only display read-only display read-only display read-only display read-only display hyperlink [NP Admin only] read-only display

## User List Interaction

Action	Result
1. Click Add Asset button	Displays blank Asset Form in the work area.
2. [Click Asset Location button] area	NP Admin ONLY: displays Asset Location list in work
3. Click Asset ID hyperlink	Displays Asset Form in the work area with data for selected asset



4. [Click Location ID hyperlink]

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NP Admin ONLY: displays Asset Location Form in  
the work area with data for the selected location



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## Asset Form

The screenshot shows the 'Edit Asset Form' page of the NOCpulse software. At the top, there's a navigation bar with tabs for 'Operations Center', 'Reports', 'NOCpulse Configuration', and 'Help'. Below the navigation bar, there are several dropdown menus and input fields. The main area is titled 'Edit Asset Form' and contains fields for Asset ID, Lease ID, Make, Model, Serial #, Installation Date, Live Date, Location ID, and Rack Location. At the bottom right of the form area are two buttons: 'Save Changes' and 'De-Activate'.

### Context (Permission: NP Admin, Customer Admin)

This form displays in the work area when you drill down on an asset ID hyperlink or click the "Add Asset" button on the Asset List header.

### Contents

Header	Account Name Update Confirmation Message	
Asset Form	Asset ID Lease ID Make, Model, Serial # Installation, Live Dates Location ID Rack Location Buttons	Editable text field Editable text field Editable text fields Editable text fields Selection list Editable text field Save/Save Changes   De-Activate

### Asset Form Interaction

Action	Result
1. Enter text	
2. Click Save button	Returns to Asset list with new asset displayed in list
3. Click Save Changes button	Displays confirmation message in header
4. Click De-Activate button	Displays confirmation message in header
	Buttons change to "Return to Asset List" and "Re-Activate"



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## Asset Location List

The screenshot shows the NOCpulse interface with the title 'Asset Location Administration'. Below the title is a table with columns: Name, Address, State, and Phone. The data in the table is as follows:

Name	Address	State	Phone
tsd	222 asdfaf	CA	408-555-1212
dsg	3234 W. dfasdd	MN	609-333-7766
rarkwe	123 ekktk	MA	617-299-9922
valtwe	8827 NE dfetyr	GA	509-355-3323
dfg	87203 Kasdfat	TX	423-234-5678

### Context (Permission: NP Admin only)

This list displays in the work area when a NOCpulse administrator clicks the Asset Location button in the Asset List header.

### Contents

Header	Account Name Page Heading Add Location button	
Asset Location List	Location Name Address State Phone	hyperlink read-only display read-only display read-only display

### Asset Location List Interaction

Action	Result
1. Click Add Location button	Displays blank Asset Location form in work area
2. Click Location Name hyperlink	Displays Asset Location form with data for selected location



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## Asset Location Form

The screenshot shows a web-based application window titled "Edit Asset Location Form." At the top, there's a navigation bar with tabs for "Operations Center," "Reports," "NOCpulse Configuration," and "Help." Below the navigation bar, there are several dropdown menus and input fields. The main area contains form fields for "Name," "Address 1," "Address 2," "State," "Zip Code," "County," and "Phone Number." At the bottom right of the form area, there are two buttons: "Save Changes" and "De-Activate".

### Context (Permission: NP Admin)

This form displays in the work area when you drill down on an asset location hyperlink or click the “Add Location” button on the Asset List header.

### Contents

<b>Header</b>	Account Name Update Confirmation Message																
<b>Asset Location Form</b>	<table><tr><td>Location Name</td><td>Editable text field</td></tr><tr><td>Address 1</td><td>Editable text field</td></tr><tr><td>Address 2</td><td>Editable text fields</td></tr><tr><td>City</td><td>Editable text fields</td></tr><tr><td>State</td><td>Selection list</td></tr><tr><td>Zip Code</td><td>Editable text field</td></tr><tr><td>Phone Number</td><td>Editable text field</td></tr><tr><td>Buttons</td><td>Save/Save Changes   De-Activate</td></tr></table>	Location Name	Editable text field	Address 1	Editable text field	Address 2	Editable text fields	City	Editable text fields	State	Selection list	Zip Code	Editable text field	Phone Number	Editable text field	Buttons	Save/Save Changes   De-Activate
Location Name	Editable text field																
Address 1	Editable text field																
Address 2	Editable text fields																
City	Editable text fields																
State	Selection list																
Zip Code	Editable text field																
Phone Number	Editable text field																
Buttons	Save/Save Changes   De-Activate																

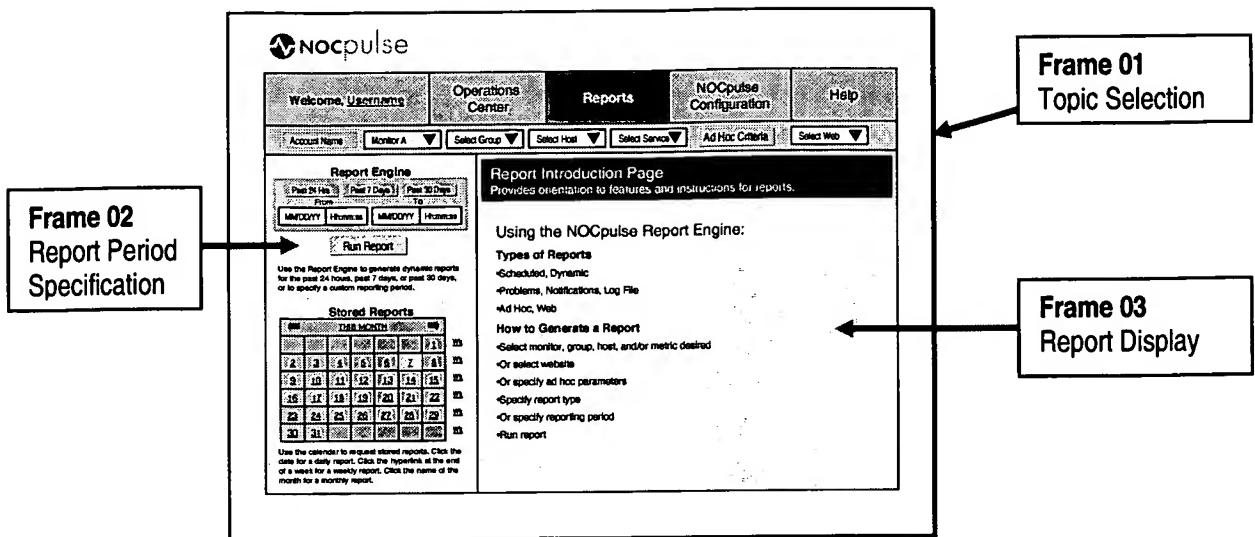
### Asset Location Form Interaction

Action	Result
1. Enter text	
2. Click Save button displayed	Returns to Asset Location List with new location
3. Click Save Changes button	Displays confirmation message in header
4. Click De-Activate button	Displays confirmation message in header Buttons change to “Return to Asset List” and “Re-Activate”



Draft Version Only

## Reports Tab



## Context

Authorized users can access the Reports module from anywhere in the system by clicking on the Reports tab on the Navigation Bar. The basic application interface consists of three principle components: a topic selection bar [Frame 01], a time period specification panel [Frame 02], and a report display panel [Frame 03].

The default view opens with an introduction/instruction message in the display panel.

## Contents

### Topic Selection Bar

	Account Name	Read-only display
	Monitor	Selection list
	Select Group	Selection list, filtered by Monitor
Select Host	Select Service	Selection list, filtered by Host selection
	Ad Hoc Criteria button	Hyperlink to Ad Hoc Criteria form
	Select Web	Selection list

### Time Specification Panel

Report Engine	Past 24 hrs   Past 7 days   Past 30 days buttons Range Selector (defaults to Past 24 Hrs.) Format: DD/MM/YY hh/mm/ss
Calendar Selector	Run Report (submit button) Highlight indicates current date Arrows for month selection Hyperlinks to stored reports Hyperlinks for week selection
Time Spec instructions	Text



Draft Version Only

## Report Display Panel

Header  
Data Display

Report Title, Date, Range  
Orientation/Instruction text

### Selection Bar Interaction

Action	Result
1. Click Monitor selection list	Displays available Monitors Select a Monitor to enable Group and Host menus Group and Host options are filtered by Monitor selection
2. Click Group selection list	Displays available Groups Select a Group to enable Service menu Host and Service options are filtered by Group selection
3. Click Host selection list	Displays available Hosts Select a Host to enable Service menu Service options are filtered by Host selection
4. Click Service selection list	Displays available Services Select a service to restrict the report to a specific service on a specific host
5. Click Ad Hoc Criteria button	Displays Ad Hoc Criteria form in the Display Area
6. Click Web selection list	Displays a list of URLs Select a URL for web trend analysis

## Time Specification Panel

Action	Result
• Click Run Report button	Generates a report based on current topic selections and time parameter specifications (defaults to Past 24 Hrs)
• Enter Start/End parameters	Displays requested report in Display Area Defines start/end dates and times for custom period Data format: MM/DD/YY hh:mm:ss Defaults to past 24 hours
• Click Past 24 Hrs button	Report displays on clicking Run Report button <i>Dynamic Report message displays as report loads</i>
• Click Past 7 Days button	Automatically populates Start/End parameter fields Starts 24 hours before current time
• Click Past 30 Days button	Automatically populates Start/End parameter fields Starts 7 days before current time
• Click Month Selection arrows	Automatically populates Start/End parameter fields Starts 30 days before current time
• Click Month hyperlink	Displays Next or Previous Month Displays dynamic Month-to-date Report for current month or stored Monthly Report for historical months



Draft Version Only  
*Dynamic Report message displays as Month-to-date report loads*

- Click Date hyperlink  
Displays dynamic Past 24 Hr Report for current day or stored Daily Report for historical dates  
*Dynamic Report message displays as dynamic report loads*
- Click Week hyperlink  
Displays dynamic Week-to-Date Report for current week or stored Weekly Report for historical weeks  
*Dynamic Report message displays as Week-to-Date report loads*

## Report Display Panel

Action	Result
• Click Export button	Exports data from report as CSV file
• Click Print button	Prints Report Display frame
• Read instructions	Select topic and time parameters for report

## Issues

Calendar Widget	Resource requirement: 2 people x 2 weeks? Phase 1 Alternative in consideration (see next page)
Groups	Will groups be required? Will host list be unmanageable without groups?
Services	Maximum number of groups per monitor: 255 Service list available when group is selected? Generic list of services or services listed by host? Backward filter: choose (generic) service to filter host list to show only host running selected service?



Draft Version Only

## Alternate Time Specification Mechanism

The screenshot shows the NOCpulse Report Engine interface. At the top, there's a navigation bar with links for 'Welcome', 'Dashboard', 'Operations Center', 'Reports', 'NOCpulse Configuration', and 'Help'. Below the navigation bar, there are several dropdown menus: 'Select Page', 'Master A', 'Select Group', 'Select Host', 'Select Service', and 'Select Web'. The main content area is titled 'Report Engine' and contains two sections: 'Report Engine' and 'Stored Reports'. The 'Report Engine' section includes fields for 'Select Month' (set to 'MAY00'), 'Select Year' (set to '2000'), and 'Run Report'. The 'Stored Reports' section has dropdowns for 'Select Date' and 'Select Week Ending'. To the right of these sections is a sidebar titled 'Using the NOCpulse Report Engine:' which lists 'Types of Reports' (Scheduled, Dynamic, Problems, Notifications, Log Files, Ad Hoc, Web) and 'How to Generate a Report' (select monitor, group, host, and/or metric desired, select website, specify ad hoc parameters, specify report type, specify reporting period, run report).

## Context

If the calendar widget proves to be outside the implementation scope of this phase, the following specification outlines an alternative structure for the time specification functionality.

## Contents

**Topic Selection Bar** unchanged

### Time Specification Panel

Report Engine	Past 24 hrs   Past 7 days   Past 30 days buttons Range Selector (defaults to Past 24 Hrs.) Format: DD/MM/YY hh/mm:ss
Stored Reports	Month Selection list Date Selection list (select date OR week) Week Selection list (select date OR week) Year Selection List (defaults to current year)
Run Report button	Submit button
Ad Hoc Report instructions	Text
Specify Criteria button	Hyperlink to Ad Hoc Report form

### Time Specification Interaction

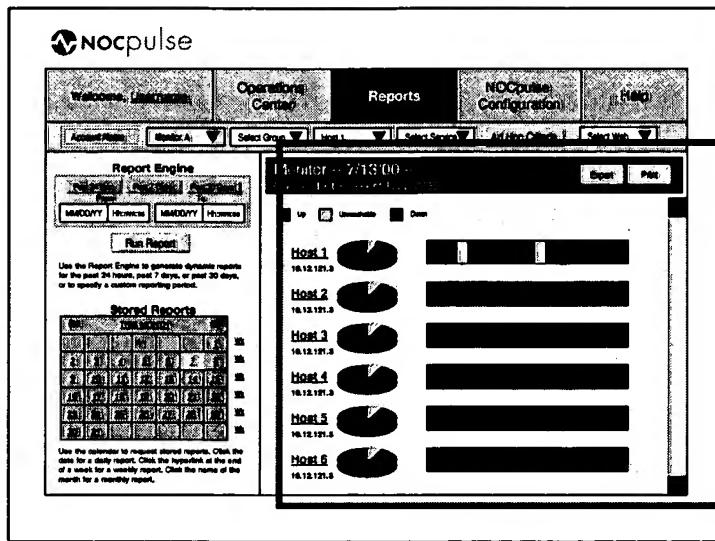
Action	Result
--------	--------

NOTE: User may choose either the Report Engine or the Stored Report Selector to specify time period



1. Click Period button	Draft Version Only
2. Enter dates and/or times	Displays past 24 hrs, past 7 days, or past 30 days in Range fields
3. Select Month	Overrides default or current date/time settings
4. Select Date	Specifies month for report
5. Select Week Ending date	Filters Date and Week options by selected month
6. Select Year	(optional) Specifies date for report
7. Click Run Report button	(optional) Specifies week for report
	Specifies year for report
	Generates a report based on selected parameters.

## Monitor Report



Monitor Report

## Context

This report is not an eFORCE deliverable for this phase, but is included to illustrate the complete architecture and functionality of the interface. Until this report is available, the Monitor list will only serve to select the desired monitor and filter the Group and Host lists. The Run Report button and Stored Reports will remain inactive until a specific host is selected.

This report populates the display area when the user selects a Monitor from the drop-down list and  
 a) specifies a reporting period and clicks the "Run Report" button or  
 b) clicks a hyperlink for a stored report on the calendar selector.

## Contents

<b>Header</b>	Monitor Name Date Report Period Export Button Print button								
<b>Monitor Info</b>	<p>List of all Hosts on Monitor. For each Host:</p> <table border="0"> <tr> <td>Host Name</td> <td>hyperlink displays Host Overview Report Alt tag defines status thresholds</td> </tr> <tr> <td>IP Address</td> <td></td> </tr> <tr> <td>Availability Pie Chart</td> <td>Up/Down/Unreachable Alt tag displays percentage numbers for each status</td> </tr> <tr> <td>Status Over Time</td> <td>Color-coded bar chart Alt tag displays start &amp; end times for each segment</td> </tr> </table>	Host Name	hyperlink displays Host Overview Report Alt tag defines status thresholds	IP Address		Availability Pie Chart	Up/Down/Unreachable Alt tag displays percentage numbers for each status	Status Over Time	Color-coded bar chart Alt tag displays start & end times for each segment
Host Name	hyperlink displays Host Overview Report Alt tag defines status thresholds								
IP Address									
Availability Pie Chart	Up/Down/Unreachable Alt tag displays percentage numbers for each status								
Status Over Time	Color-coded bar chart Alt tag displays start & end times for each segment								



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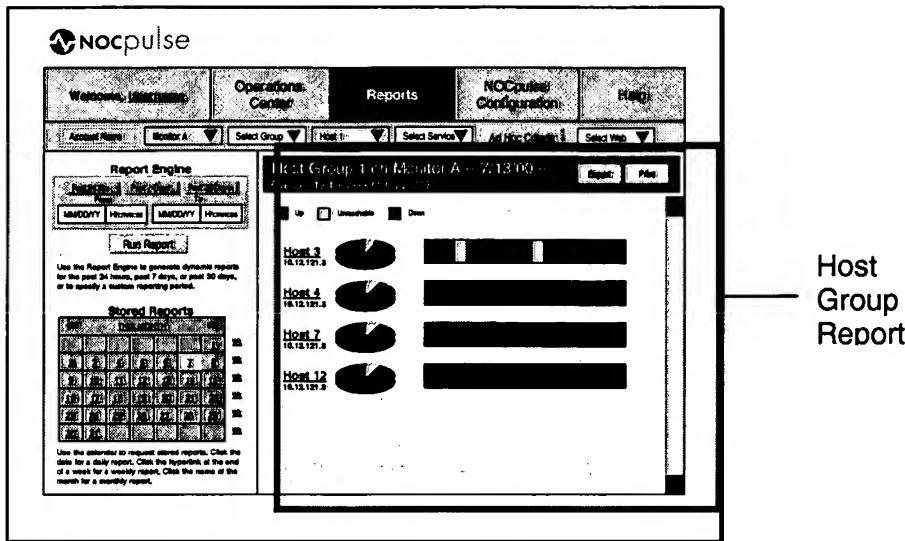
## Header Interaction

Action	Result
NOTE: These functions are common to all report screens.	
1. Click Export button	Generates data file in CSV format
2. Click Print button	Prints current frame



Draft Version Only

# Host Group Report



## Context

This report is not an eFORCE deliverable for this phase, but is included to illustrate the complete architecture and functionality of the interface. Until this report is available, the Group list will only serve to select the desired group and filter the Host list. The Run Report button and Stored Reports will remain inactive until a specific host is selected.

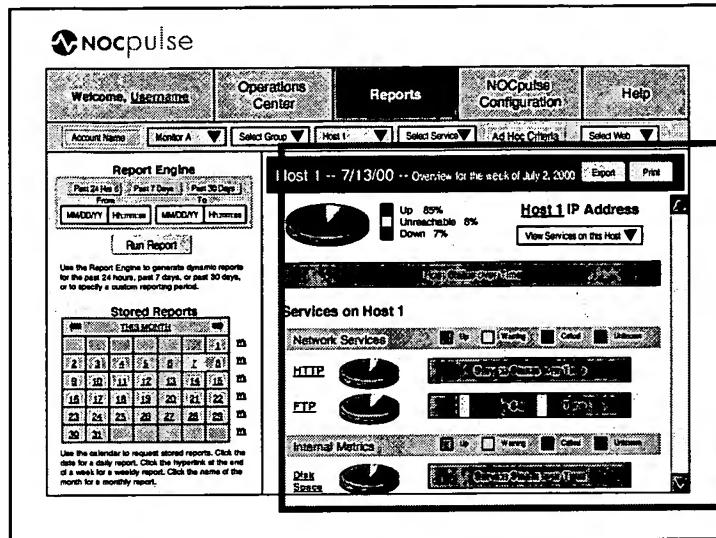
This report populates the display area when the user selects a Host Group from the drop-down list and  
a) specifies a reporting period and clicks the "Run Report" button or  
b) clicks a hyperlink for a stored report on the calendar selector.

## **Contents**



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## Host Overview Report



Host  
Overview  
Report

## Context

This report populates the display area when the user selects a Host from the drop-down list and  
a) specifies a reporting period and clicks the "Run Report" button or  
b) clicks a hyperlink for a stored report on the calendar selector.

## Contents

<b>Header</b>	Host Name, Date, Period, Export button, Print button						
<b>Host Info</b>	<table><tr><td>Host Name</td><td>hyperlink displays Host Detail Report</td></tr><tr><td>IP Address</td><td>Alt tag defines status thresholds</td></tr></table>	Host Name	hyperlink displays Host Detail Report	IP Address	Alt tag defines status thresholds		
Host Name	hyperlink displays Host Detail Report						
IP Address	Alt tag defines status thresholds						
	<table><tr><td>Availability Pie Chart</td><td>Up/Down/Unreachable</td></tr><tr><td></td><td>Alt tag displays percentage numbers for each status</td></tr></table>	Availability Pie Chart	Up/Down/Unreachable		Alt tag displays percentage numbers for each status		
Availability Pie Chart	Up/Down/Unreachable						
	Alt tag displays percentage numbers for each status						
	<table><tr><td>Availability Table</td><td>Color key   Status   Percentage</td></tr><tr><td>View Service Info</td><td>Selection list hyperlinks to anchors in service list</td></tr></table>	Availability Table	Color key   Status   Percentage	View Service Info	Selection list hyperlinks to anchors in service list		
Availability Table	Color key   Status   Percentage						
View Service Info	Selection list hyperlinks to anchors in service list						
	<table><tr><td>Status Over Time</td><td>Color-coded bar chart</td></tr><tr><td></td><td>Alt tag displays start &amp; end times for each segment</td></tr></table>	Status Over Time	Color-coded bar chart		Alt tag displays start & end times for each segment		
Status Over Time	Color-coded bar chart						
	Alt tag displays start & end times for each segment						
<b>Scout Info</b>	<i>Scouts are organized into Network Services and Internal Metrics sub-categories</i>						
	<table><tr><td>Status Key</td><td>Defines color code for charts</td></tr><tr><td>Service Name</td><td>hyperlink displays Service Detail Report</td></tr><tr><td></td><td>Alt tag defines status thresholds</td></tr></table>	Status Key	Defines color code for charts	Service Name	hyperlink displays Service Detail Report		Alt tag defines status thresholds
Status Key	Defines color code for charts						
Service Name	hyperlink displays Service Detail Report						
	Alt tag defines status thresholds						



Draft Version Only

Availability Pie Chart	Up/Warning/Critical/Unknown Alt tag displays percentage numbers for each status
Status Over Time	Color-coded bar chart Alt tag displays start & end times for each segment

## Header Interaction

Action	Result
NOTE: These functions are common to all report screens.	
1. Click Export button	Generates data file in CSV format
2. Click Print button	Prints current frame



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## Host Detail Report

The screenshot shows the NOCPulse web application. At the top, there's a navigation bar with links for 'Welcome, Username', 'Operations Center', 'Reports', 'NOCPulse Configuration', and 'Help'. Below the navigation bar, there's a 'Report Engine' section with dropdown menus for 'Past 24 Hours', 'Past 7 Days', and 'Past 30 Days'. It also includes buttons for 'MONDAY', 'TUESDAY', 'WEDNESDAY', 'THURSDAY', 'FRIDAY', 'SATURDAY', and 'SUNDAY', along with 'Run Report...' and 'Run All Reports...'. A note below says: 'Use the Report Engine to generate dynamic reports for the past 24 hours, past 7 days, or past 30 days, or to specify a custom reporting period.' To the right, a large panel displays 'Host 1 -- 7/13/00 -- Status for the week of July 2, 2000'. It features a pie chart showing availability (Up 65%, Unreachable 8%, Down 7%), a table for 'Host 1 IP Address' with columns for Description, Status thresholds, and Notification specs, and sections for 'Host 1 Activity Details' (Log Files for week of July 2, 2000) and 'Host Notifications for week of July 2, 2000' (listing services, status, date/time, contact, and info). A legend at the bottom defines colors: green for Up, yellow for Unreachable, and red for Down.

Host Detail Report

## Context

This report populates the Display Area when the user drills down on the Host Name hyperlink on the Host Overview Report.

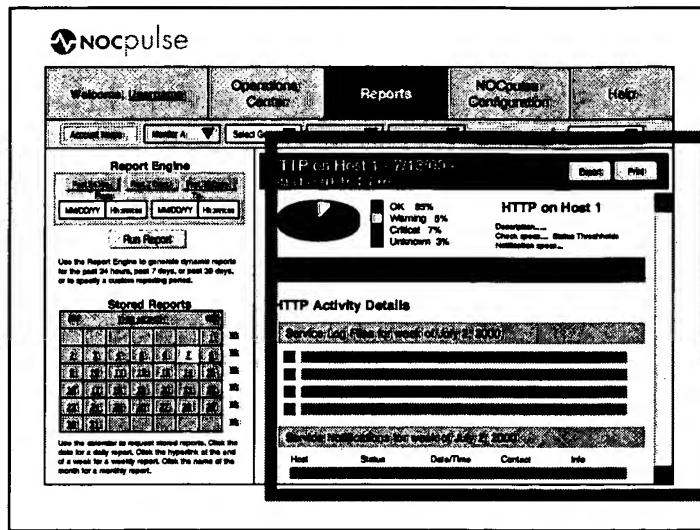
## Contents

<b>Header</b>	Host Name Date Report Period Export button Print button	
<b>Host Info</b>	Host Name IP Address Additional info  Availability Pie Chart Availability Table Status Over Time	hyperlink displays Host Detail Report  Description, Notification specifications Status threshold values Up/Down/Unreachable Color key   Status   Percentage Color-coded bar chart
<b>Activity Info</b>	Host Log File Host Notifications	Log file for specified time period Host notifications for specified period



Draft Version Only

## Service Detail Report



Service  
Detail  
Report

## Context

This report populates the Display Area when the user drills down on a Service Name hyperlink on the Host Overview Report or selects a Service from the Service selection list in the topic bar.

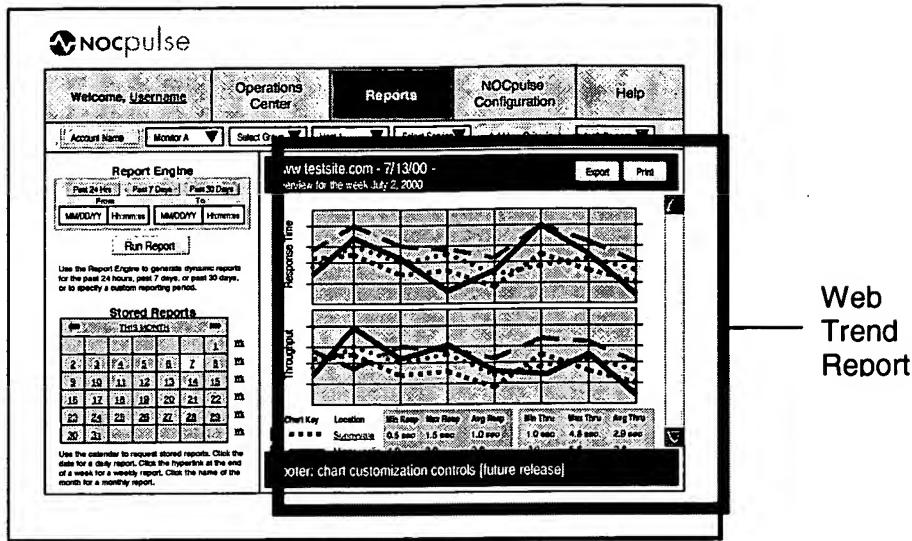
## Contents

<b>Header</b>	Service Name Date Report Period Export button Print button	
<b>Host Info</b>	Service Name Host Name Additional info  Availability Pie Chart  Availability Table Status Over Time	hyperlink displays Host Overview Report Description, Check specifications, Status threshold values Notification specifications Up/Warning/Critical/Unknown Alt tag indicates time in each status? Color key   Status   Percentage   Time? Color-coded bar chart
<b>Activity Info</b>	Service Log File Service Notifications	Service log for specified time period Service notifications for specified period



Draft Version Only

## Web Trend Report



Web  
Trend  
Report

## Context

This report populates the Display Area when the user selects a URL from the Web drop-down list and (a) clicks a day, week, or month on the calendar or (b) enters a date/time range in the "From" and "To" boxes and clicks the "Run Report" button".

## Contents

<b>Header</b>	URL Date Report Period Export button Print button
<b>Line Graphs</b>	Response Time (seconds) over Report Period (day week month custom) Multiple reporting agents on single chart Throughput (k/sec) over Report Period (day week month custom) Multiple reporting agents on a single chart
<b>Data Table</b>	For each reporting location: Check box Selects location for custom report Color Code Identifies location line on chart Location name hyperlink to detail chart Minimum Response Time in hundredths of a second Maximum Response Time in hundredths of a second Average Response Time in hundredths of a second



Draft Version Only

Minimum Throughput      in k/sec  
Maximum Throughput      in k/sec  
Average Throughput      in k/sec

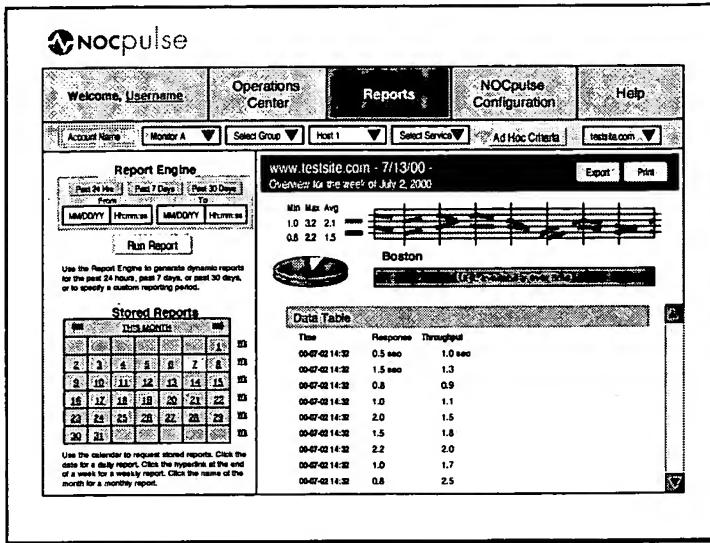
**Footer**

Customization controls      [future phase]  
                                    Scale y-axis to clip spikes  
                                    other custom views



Draft Version Only

## Web Agent Report



## Context

This report populates the Display Area when the user drills down on a reporting agent from the Web Trend Report.

## Contents

<b>Header</b>	URL Date Report Period Export Button Print button
<b>Line Graph</b>	Response time over reporting period Throughput over reporting period
<b>Min/Max/Avg Table</b>	Minimum, Maximum, and Average response times over reporting period Minimum, Maximum, and Average throughput over reporting period
<b>Availability Pie</b>	Up, Down, Unreachable percentages
<b>Availability Table</b>	Up, Down, Unreachable percentages & color key
<b>Response Time Table</b>	Date & Time Stamp, Response Time, Throughput



Draft Version Only

## Ad Hoc Criteria Form

## Context

The user clicks the Specify Criteria button in the Time Specification panel. The Ad Hoc Report Criteria form appears in the Display Area.

## Contents

Header	Page Title	
<b>Host Checklist</b>	Host Accessibility Host Services	checkbox for each host on monitor checkbox for each service on each host
<b>Group Checklist</b>	Group List	checkbox for each group on monitor
<b>Service Checklist</b>	Network Services Internal Metrics	checkbox for each network service checkbox for each internal metric

## Form Interaction

Action	Result
1. Check item(s) on Host list	Select item(s) for inclusion on report
2. Check item(s) on Group list in selected group	Automatically checks boxes for all hosts & services
3. Check item(s) on Service list on all available hosts	Automatically checks boxes for selected service(s)
4. Uncheck item	Deselects item; will not be included in report



Draft Version Only

## Issues

Save Report Criteria    Affordance of a capability to save ad hoc queries would be desirable.  
Coding issues for save capability?  
Will also require a selection mechanism for saved criteria sets



Draft Version Only

## Configuring Notifications (Telamon)

This section describes the user interface for the notification configuration functionality of the NOCpulse IOSS.

(Customer Admin View)

### Context (Permission: NP Admin, Customer Admin)

This screen displays in the work area when you select "Configure Notifications" from the Select Function list.

### Contents

<b>Local Navigation Bar</b>	Account Name	CUSTOMERS: read-only display NOCPULSE: selection list of all accounts
	Function	Set to Configure Notifications
	Schedules	Selection list
	Contacts	Selection list, filtered by account
	Contact Groups	Selection list, filtered by account
<b>Page Header</b>	Same as Configure Monitoring page	
<b>Form Fields</b>	Same as Configure Monitoring page	

### Navigation Interaction

Action	Result
1. Select a schedule from list	Displays selected schedule in the Schedule form in Work Area "List All" option displays a list of all schedules NP ONLY: "Create New" option displays blank form
2. Select a contact from list	Displays selected contact record in the Contact form "List All" option displays a list of all contacts "Create New Contact" option displays a blank form



3. Select a contact group from list

Draft Version Only  
Displays Contact Group form with data for selected group  
“List All Groups” option displays a list of all contact groups  
“Create New Group Option” option displays a blank form

## **Account Form Interaction**

Same as Configure Monitoring page



Draft Version Only

## Schedule List

The screenshot shows the NOCPulse Admin View interface. At the top, there is a navigation bar with tabs: Welcome, Home, Operations Center, Reports, NOCPulse Configuration, and Help. Below the navigation bar, there is a search bar with dropdown menus for Yahoo 1, Notification, List All Schedules, Contact, and Contact Group. The main content area is titled "Yahoo 1 Schedules" and displays a table of schedule entries:

Name	Type
24x7	Weekly
Office Hours	Weekly
Shift Shift	Weekly
General	Weekly
Special	Rotation of Days
Dayoff	Rotation of Weeks

(NOCPulse Admin View)

## Context

The Schedule List screen displays when the user selects “List All Schedules” from the Schedule selection list.

## Contents

Page Header	(Account Name) + Schedules
Schedule List	Schedule Name      hyperlink to record
	Schedule Type      read-only display

## Interaction

Action	Result
1. Click Schedule Name hyperlink	Displays Schedule form with selected schedule data



Draft Version Only

## Create New Schedule

### Context

This screen displays when the user selects the "Create New Schedule" option from the Schedule selection list.

### Contents

<b>Define Schedule Form</b>	Name	Editable text field
	Create from scratch	Radio button
	Select Schedule Type	Drop-down list
	Use schedule as template	Radio button
	Select Schedule	Drop-down list
	Define Schedule	Submit button

### Interaction

Action	Result
1. Enter text in Name field	defines name for schedule
2. Click radio button	specifies whether user wishes to create a schedule from scratch or use an existing schedule as a template
<i>Create from scratch</i>	requires the user to select from 3 types: Weekly, Rotation of Days, Rotation of Weeks
<i>Use schedule as template</i>	allows the user to select from a list of pre-defined schedules; a copy of the selected schedule opens without a name in the appropriate schedule form
3. Select list option	specifies a schedule type or a template to be used specified form loads in Work Area when user clicks



4. Click Define Schedules button

Draft Version Only  
**Define Schedules button**  
automatically activates the associated radio button  
if neither button has been selected previously  
Displays Schedule form for selected schedule or  
schedule type



Draft Version Only

## Weekly Schedule Form

Day	Time Range
Sunday	hh:mm-hh:mm, hh:mm-hh:mm, hh:mm-hh:mm, hh:mm-hh:mm
Monday	hh:mm-hh:mm, hh:mm-hh:mm, hh:mm-hh:mm, hh:mm-hh:mm
Tuesday	hh:mm-hh:mm, hh:mm-hh:mm, hh:mm-hh:mm, hh:mm-hh:mm
Wednesday	hh:mm-hh:mm, hh:mm-hh:mm, hh:mm-hh:mm, hh:mm-hh:mm
Thursday	hh:mm-hh:mm, hh:mm-hh:mm, hh:mm-hh:mm, hh:mm-hh:mm
Friday	hh:mm-hh:mm, hh:mm-hh:mm, hh:mm-hh:mm, hh:mm-hh:mm
Saturday	hh:mm-hh:mm, hh:mm-hh:mm, hh:mm-hh:mm, hh:mm-hh:mm

## Context

This form displays when the user selects “Weekly” from the Schedule Type drop-down list and clicks Define Schedule.

## Contents

Page Header	(Account Name) + Create New Schedule
Schedule Name	Text field
Schedule Type	Drop-down list
Day/Time Range	Day Drop-down list From Text field, format hh:00 To Text field, format hh:00 Add   Delete buttons
Add/Update Schedule	Submit button
Clear Form	Reset button
Schedule Preview	7 days radio buttons Edit Times button Delete All Times button

## Interaction

Action	Result
1. Select Day	Name displays in Name field
2. Enter time ranges	Enter up to four ranges per day
3. Click Add or Delete	Adds or deletes time range
4. Click Add/Update Schedule	Commits changes to database
5. Clear Form	Clears all fields, including Name and Schedule Type



6. Click radio button in Preview
7. Click Edit Times
8. Click Delete All Times

Draft Version Only  
Selects day for editing  
Displays selected day in Day/Time Range form  
Deletes all times for selected day



Draft Version Only

## Rotation of Days Schedule

The screenshot shows the 'Create New Schedule' interface for a 'Rotation of Days' type. The main form has fields for Name ('8-day Cycle'), Type ('Rotation of days'), # Days ('n'), and Start Date ('mmddyyyy'). Below these are four input fields for defining time ranges from hh:mm to hh:mm. To the right is a 'Schedule Preview' section showing a 10-day cycle with specific time ranges assigned to each day. Buttons at the bottom include 'Add / Update Schedule' and 'Clear Form'.

### Context

This form displays when the user selects "Rotation of Days" from the Schedule Type drop-down list and clicks Define Schedule.

### Contents

Page Header	(Account Name) + Create New Schedule	
Schedule Name	Text field	
Schedule Type	Drop-down list	
# Days	Editable Text field	
Start Date	Text field, format dd/mm/yyyy	
Day/Time Range	Day	Drop-down list
	From	Text field, format hh:00
	To	Text field, format hh:00
	Add   Delete	buttons
Add/Update Schedule	Submit button	
Clear Form	Reset button	
Schedule Preview	n days	radio buttons
	Edit Times Delete All Times	buttons
	Up   Down	arrows

### Interaction

Action	Result
1. Enter number of days	defines number of days in rotation
2. Enter start date	Editable text field
3. Select Day	Name displays in Name field
4. Enter time ranges	Enter up to four ranges per day
5. Click Add or Delete	Adds or deletes time range
6. Click Add/Update Schedule	Commits changes to database



7. Clear Form

Draft Version Only

Clears all fields, including Name and Schedule

Type

Selects day for editing

Displays selected day in Day/Time Range form

Deletes all times for selected day

Move selected day up or down in rotation order

8. Click radio button in Preview

9. Click Edit Times

10. Click Delete All Times

11. Click Up or Down arrows



Draft Version Only

## Rotation of Weeks Schedule

### Context

This form displays when the user selects “Rotation of Weeks” from the Schedule Type drop-down list and clicks Define Schedule.

### Contents

Page Header	(Account Name) + Create New Schedule
Schedule Name	Text field
Schedule Type	Drop-down list set to Rotation of Weeks
# Weeks	Editable Text field
Start Date	Text field, format dd/mm/yyyy
Add Week to Rotation	Select Week Add
Add/Update Schedule	Submit button Reset button
Clear Form	Defined weeks Delete Week Up   Down
Schedule Preview	radio buttons button arrows

### Interaction

Action	Result
1. Select Week	Selects defined weekly schedule for inclusion in rotation
2. Click Add	Adds selected weekly schedule to rotation order
3. Click Add/Update Schedule	Commits changes to database
4. Clear Form	Clears all fields, including Name and Schedule Type
5. Click radio button in Preview	Selects Week for editing
6. Click Delete Week	Deletes selected week from rotation



7. Click Up or Down arrows

Draft Version Only  
Moves selected week up or down in the rotation order

## Contact Form

The screenshot shows the NOCPulse interface with the 'Contact Form' module open. The main area displays the 'Edit Contact' screen for 'Luke Skywalker'. It includes fields for Username (Luke Skywalker), Password, and Schedule (Office Hours). Below these are buttons for 'Create / Update Contact Record' and 'Cancel'. To the right, a 'Contact Methods' panel lists three methods: LukePrimary (Email, Office Hours), LukeEvening (Phone, Swing Shift), and LukeEmergency (Page, 2nd). A note at the bottom of the panel states: 'Add a new method for a contact method to edit it. Click the Edit icon to change the properties of the selected contact. Click the Delete button to remove the selected contact from the list. Click the Schedule hyperlink to view employee details in a new window.'

## Context

(Permission: NP Admin, Customer Admin)

This form displays in the work area when the user selects a contact from the drop-down list or selects the "Add Contact" option on the list.

## Contents

Header	(Account Name) + Edit Contact Update Confirmation Message	
Contact Form	User name Password Schedule Add Contact Delete Contact	Editable text field Editable text field Selection list Submit button Button
Define Method	Name Schedule Method Type Parameters Add Method	Editable text field Selection list Selection list Text fields or selection lists filtered by Method Type Submit button
Contact Method List	Radio buttons Edit Method   Delete Method	Defined Contact Methods Buttons



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## User Form Interaction

Action	Result
1. Enter text, select options from lists	
2. Click Add/Update Contact button	Updates record and displays confirmation message in header
3. Click Delete Contact button	Deletes selected record
4. Click Add Method button	Adds method to Contact Method list
5. Click radio button	Selects contact group for editing
6. Click Edit Method button	Displays selected method for editing
7. Click Delete Method button	Deletes selected method



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## User Account Screen

The screenshot shows the User Account Screen with the following sections:

- Contact Information:** Includes fields for Username (Rick McCarthy), Password, Default Schedule (Select Schedule Type), and Contact Methods (RickEmail, RickPhone, RickData, RickHomePhone).
- Contact Method:** Shows a selected method (RickPager) with details: Schedule (24x7), Method Type (Pager), Pager Type (Motorola), Pager # (850-555-1234), and PIN # (9876).
- Schedule:** A list of available schedules with a dropdown menu set to "Selected Schedule". The list includes: Daily, Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, and Two Ranges.

## Context

(Permission: Customer -- limited permission for all users to edit contact info)

This form displays in the work area when you drill down on a username hyperlink, select a contact from the drop-down list, or select the "Add Contact" option on the list.

## Contents

<b>Header</b>	(Account Name) Update Confirmation Message	
<b>Contact Form</b>	User name Password Schedule Contact Methods Update	Editable text field Editable text field Selection list Hyperlink list Submit button
<b>Define Method</b>	Name Schedule Method Type Parameters Type Add Method Clear Form	Editable text field Selection list Selection list Text fields or selection lists, filtered by Method Submit button Reset button
<b>Schedule Display</b>	Select Schedule Schedule	Selection list Read-only display

## User Form Interaction

Action	Result
1. Enter text in Name field	Update Contact Name
2. Enter/Confirm Password	Defines password for Contact
3. Click change password checkbox	Displays Change Password fields
4. Select Schedule from list	Enter Old PW, Enter New PW, Confirm New PW
5. Click Contact Method hyperlink	Defines default schedule for Contact
	Displays method details in Define Method form



6. Enter text or select list options	Draft Version Only
7. Click Add/Update Method	Define or edit a Contact method
8. Click Delete Method button	Updates database
9. Select Schedule from list in Schedule Display panel	Deletes selected method from database
10. Click Return button	Displays selected schedule
	Returns user to the screen from which they accesses this form



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## Contact Group List

The screenshot shows the NOCpulse interface with the 'Contact Groups for Account' list. The list displays 11 contact groups with their names, strategies, and member counts.

Groupname	Strategy	Members
test	asdadf	2345678
doisg	dfasdf	12345678
redkive	febr	12345678
valetive	dfetyer	12345678
clor	asdadf	12345678
redkive	febr	12345678
valetive	dfetyer	12345678
02wG/c	asdadf	12345678
dfalvive	asdadf	12345678
clor	asdadf	12345678
lase	asdadf	12345678

### Context (Permission: NP Admin, Customer Admin)

This page displays when you select the "List Contact Groups" option in the Contact Group selection list.

### Contents

<b>Header</b>	(Account Name) + Contact Groups Add Group button
<b>Contact Group List</b>	TBD based on Telemon data; probably something like this: Groupname hyperlink Description read-only display Contacts read-only display

### Contact Group List Interaction

Action	Result
1. Click Add Group button	Displays blank Contact Group Form in the work area.
2. Click groupname hyperlink data for selected group	Displays Contact Group Form in the work area with



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## Contact Group Form

### Context (Permission: NP Admin, Customer Admin)

This form displays in the work area when you drill down on a contact group hyperlink, select a contact group from the list, or select the "Add Group" option in the list.

### Contents

Header	Contact Group Name Update Confirmation Message	
Group Form	Name Select Members Select Strategy Rotate First Notification Create   Delete	Text field Selection list Drop-down list Check box Buttons
Methods in Group	Radio buttons Group Name Delete Method Up   Down arrows	Each method in group hyperlink Button

### Contact Group Form Interaction

Action	Result
1. Enter text, select options from lists	
2. Click Create/Update button	Saves Contact Group record and displays confirmation message in header
3. Click radio button	Selects Contact Method for editing
4. Click Group Name hyperlink	Displays group information in Group form



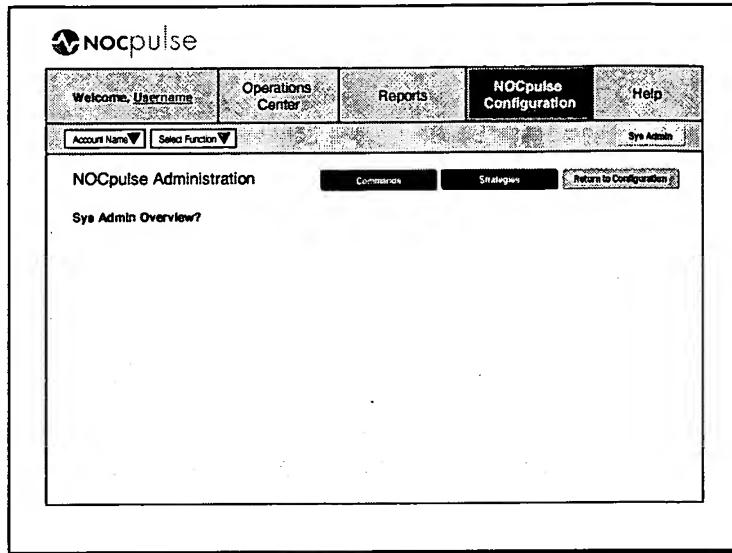
5. Click Delete button
6. Click Up or Down arrows

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**Deletes selected group**  
**Move selected group up or down in group order**



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## System Administration



### Context

Authorized NOCpulse users will have a Sys Admin button on their Configuration Nav Bar. When the NOCpulse user clicks the Sys Admin button, the Administration screen will provide buttons to edit Commands or Strategies.

### Contents

Page Header

Introduction/Instructional Text

Commands Button

Strategies Button

Return Button

### Interaction

Action	Result
1. Click the Commands button	Displays the Command screen
2. Click the Strategies button	Displays the Strategies screen
3. Click the Return button	Returns the user to Configuration main page



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## Strategies Form

### Context (Permission: NP Admin only)

This page displays in the work area when a NOCpulse administrator clicks the "Strategies" button on the System Administration screen.

### Contents

<b>Sub Nav Buttons</b>	Commands Strategies Return to Config Main Page	Disabled
<b>Add/Edit Strategy</b>	Strategy Name Type Strategy Add Strategy	text field selection list text field Submit button
<b>Strategy List</b>	Strategy Name ID # Type Description	hyperlink unique ID read-only text read-only text

### Strategy Interaction

Action	Result
1. Enter/edit text in Name field	Defines name for Strategy
2. Select Type from drop-down list	Identifies Strategy Type
3. Enter strategy in Strategy field	Defines Telemor Strategy
4. Click Add Strategy	Adds Strategy to list
5. Click Strategy Name hyperlink	Displays Strategy data in Add/Edit box



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## Commands Form

### Context (Permission: NP Admin)

This page displays in the work area when a NOCpulse administrator clicks the "Commands" button on the System Administration screen.

### Contents

Sub Nav Buttons	Commands Strategies Return to Config Main Page	Disabled
Add/Edit Command	Command Name Type Command Parameters Defaults Add Command	text field selection list text field selection list selection list Submit button
Command List	Command Name ID # Type Description	hyperlink unique ID read-only text read-only text

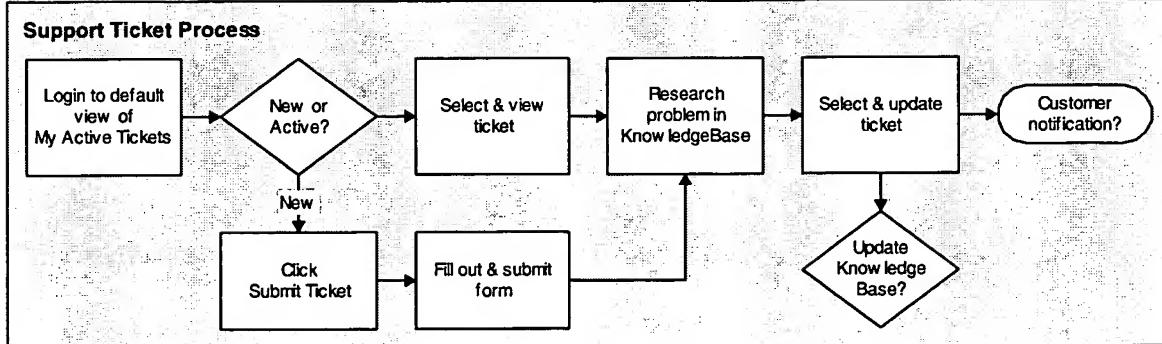
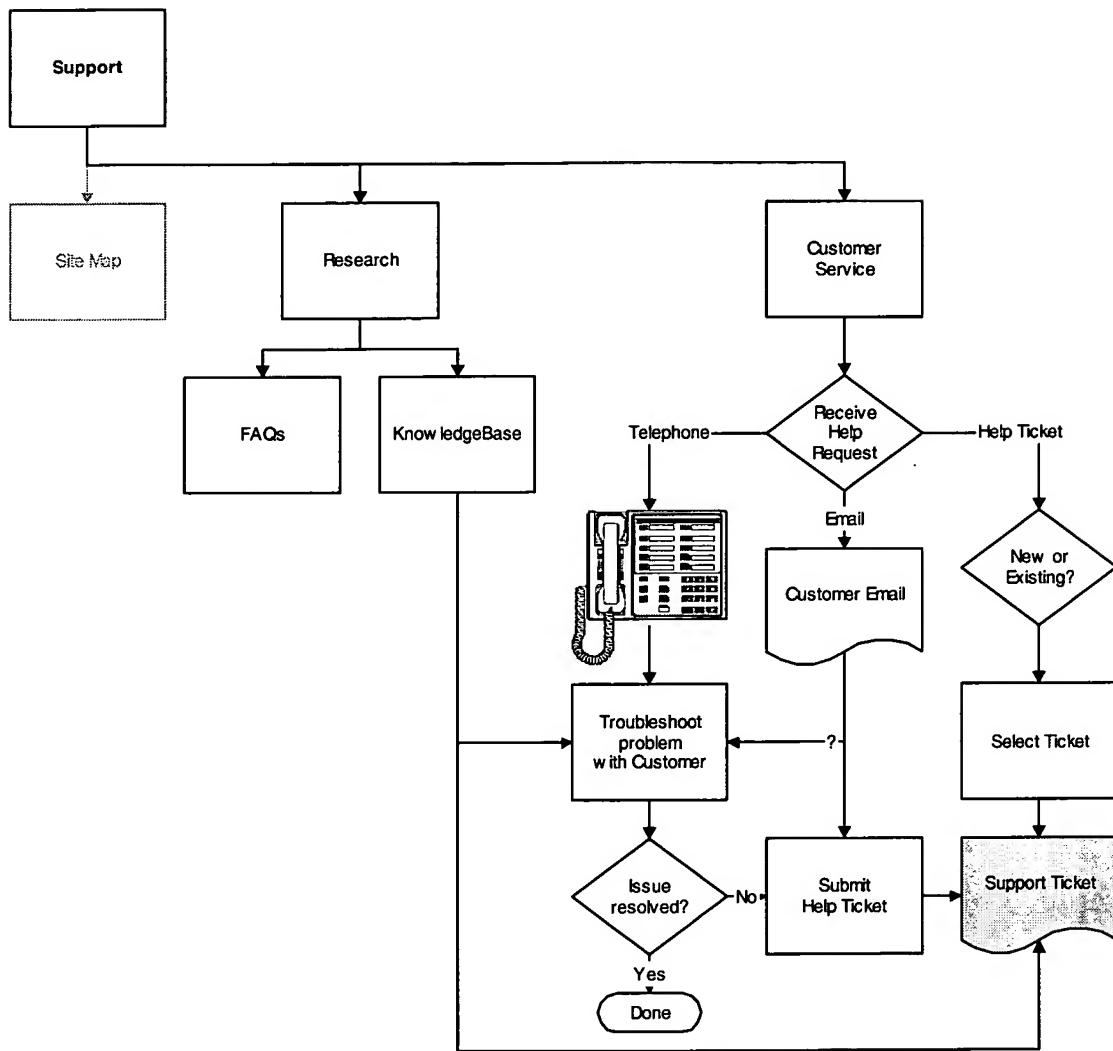
### Command Interaction

Action	Result
1. Enter/edit text in Name field	Defines name for Command
2. Select Type from drop-down list	Identifies Command Type



3. Enter Command in text field	Draft Version Only
4. Select Parameters	Defines Command
5. Select Defaults	
6. Click Add Command	Adds Command to list
Click Command Name hyperlink	Displays Command data in Add/Edit box

## Help Desk Workflow





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## Help Desk Interface

The wireframe illustrates the layout of the NOCpulse Help Desk Interface. At the top is a header bar labeled 'NOCpulse Brand'. Below it is a navigation bar with tabs for 'Operations Center', 'Reports', and 'NOCpulse Configuration'. A secondary navigation bar below the main one includes 'Username', 'Site Map', 'FAQs', 'KnowledgeBase', 'New Tickets', and 'Review Tickets'. The central area is labeled 'Work Area' and contains placeholder text: 'Welcome and instructions on default page', 'Innovate content incorporated in this frame as Harry selects options from the drop-down lists.', and 'Recommend re-design of Innovate forms for brand consistency & usability enhancements'.

### Context (Permission: Help Desk Staff)

This page displays when a NOCpulse user with staff-level permissions clicks the support tab.

### Contents

<b>Primary Navigation</b>	Standard NOCpulse navigation	
<b>Secondary Nav Bar</b>	Username	Hyperlink
	Site Map	Button
	FAQs	Drop-down list
	KnowledgeBase	Drop-down list
	New Ticket	Drop-down list
	Review Ticket	Drop-down list
<b>Work Area</b>	Defaults to Welcome/Instructions screen Variable display of Innovate content based on secondary navigation	

### Interaction

Action	Results
1. Select from FAQs list	List All FAQs: <b>Find FAQ Results Window</b> (Innovate form) Find FAQs: <b>Find FAQ Window</b> Create New Entry: <b>Create FAQ Window</b>
2. Select from KnowledgeBase list	Search KnowledgeBase: <b>KnowledgeBase Search Window</b> Create New Entry: ?



3. Select from New Ticket list
4. Select from Review Ticket list

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Submit Ticket: **Find User Profile for Ticket Window**  
Claim Ticket: **Find Tickets to Claim Window**  
List New Tickets: **Look-Up Ticket(s) Results Window**  
List All My Active Tickets: **Look-Up Ticket(s) Results**  
List All My Tickets: **Look-Up Ticket(s) Results Window**  
List All Active Tickets: **Look-Up Ticket(s) Results**  
**Window**  
Find Ticket: **Look-Up Ticket(s) Window**